Biological Technical Report for the Sweetwater River Phase III Trail Project, San Diego County, California (Project Number COFD-00251)

Prepared for

County of San Diego
Department of Public Works
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123
Contact: Paul Calderwood

Prepared by

RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101-2358
P 619.308.9333 F 619.308.9334
RECON Number 4782B
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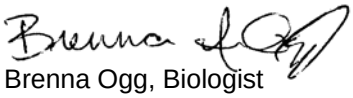

Brenna Ogg, Biologist

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Glossary of Terms and Acronyms

ACOE	U.S. Army Corps of Engineers
ArcGIS	Arc Geographical Information System
BMO	Biological Mitigation Ordinance
BRCA	Biological Resource Core Area
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
CNDDB	California Natural Diversity Database
CTMP	Community Trails Master Plan
CSS	Coastal sage scrub
CWA	Clean Water Act
County	County of San Diego
GPS	Global Positioning System
HCP	Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
MSCP	Multiple Species Conservation Program
NCCP	Natural Communities Conservation Plan
NRCS	Natural Resource Conservation Service

NWP	Nationwide Permit
RPO	Resource Protection Ordinance
RWQCB	Regional Water Quality Control Board
SanGIS	San Diego Geographic Information Source
SSURGO	Soil Survey Geographic
SWRCB	State Water Resources Control Board
SRP	Sweetwater Regional Park
SWOMA	Sweetwater Off-site Mitigation Area
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USFWS	U.S. Fish and Wildlife Service

Summary

As part of a planned trail system under the County Trails Program, the proposed project is a multi-use trail (pedestrian, equestrian, bicycle) approximately one and one-half miles in length that will complete a link in a trail system that will eventually extend east from Interstate 805 to a loop trail around the Sweetwater Reservoir in the County of San Diego (County). The proposed trail is located within the Sweetwater Regional Park (SRP). The SRP portion of the proposed trail will traverse through the County's Sweetwater Off-site Mitigation Area (SWOMA), a mitigation area for County public projects.

Five sensitive avian species are known or have a high potential to occur in the project vicinity including: federally endangered least Bell's vireo; CDFG Species of Special Concern yellow breasted chat, yellow warbler, and Cooper's hawk; and western bluebird, a locally rare species. In order to prevent direct impacts to these and other nesting migratory birds, initial grading and construction within the proposed project site should take place outside the avian breeding season of February 1 to September 15. If construction occurs between February 1 and September 15, a qualified biologist shall conduct a pre-construction clearance survey for nesting birds within the proposed project site. If any active nest is located, the nest area will be flagged and avoided. No work activity may occur within the immediate vicinity of the nest until a qualified biologist determines the fledglings are independent of the nest. These measures and the detailed mitigation discussed in Sections 3.4.A and 3.4.G/J. would reduce impacts to a level of less than significant. San Diego sagewort is known to occur in the project vicinity, but was not detected during the general survey in August and September 2008.

A total of 1.023 acres of vegetation communities will be permanently impacted, and a total of 0.035 acre of vegetation communities will be temporarily impacted by the proposed project. Within the impact areas, five sensitive vegetation communities, including southern arroyo willow riparian forest, southern willow scrub, southern cottonwood-willow riparian forest, coastal brackish marsh, and disturbed Diegan coastal sage scrub, will be permanently impacted. Temporary impacts are proposed within one sensitive vegetation community, southern arroyo willow riparian forest.

A total of 9.95 acres of U.S. Army Corps of Engineers (ACOE) jurisdictional resources were delineated in the survey area. Wetland sites, which total 9.05 acres, exhibited positive indicators of each of the three criteria: hydrophytic vegetation, hydric soils, and wetland hydrology. Non-wetland waters of the U.S., totaling 0.90 acre, were also delineated in the survey area. The proposed project would permanently impact 0.165 acre of ACOE jurisdictional resources, including 0.158 acre of wetlands and 0.007 acre of non-wetland waters. The proposed project would temporarily impact 0.030

acre of ACOE jurisdictional resources, including 0.022 acre of wetlands and 0.008 acre of non-wetland waters.

CDFG jurisdictional resources were also delineated on-site. CDFG jurisdiction totals 26.82 acres, which includes the 9.05 acres of ACOE wetlands and 0.90 acre of non-wetland waters (regulated by CDFG as a streambed), and an additional 16.87 acres of riparian habitat outside the ordinary high water mark. Permanent impacts to CDFG jurisdiction total 0.344 acre, including 0.337 acre of riparian habitat and 0.007 acre of streambed. Temporary impacts to CDFG jurisdiction total 0.035 acre, including 0.027 acre of riparian habitat and 0.008 acre of streambed.

Impacts to jurisdictional resources on-site may require a 404 Nationwide Permit (NWP), 1600 Streambed Alteration Agreement from CDFG, and a 401 certification from the California Regional Water Quality Control Board (RWQCB). Impacts to jurisdictional resources would require mitigation through habitat creation, enhancement, or preservation to achieve a no-net-loss of jurisdictional resources. Outside the SWOMA, the proposed mitigation ratio for impacts (temporary or permanent) to non-wetland waters/streambed and wetlands/riparian habitat is 1:1. Within the SWOMA, the proposed mitigation ratio for permanent impacts to non-wetland waters/streambed and wetlands/riparian increases to 2:1. Therefore, 0.444 acre of mitigation may be required through on-site habitat creation, enhancement, or restoration or the purchase of off-site mitigation credits.

Although the proposed project is located within a wildlife movement corridor, the project will not result in significant impacts to wildlife movement corridors or nursery sites. The proposed project would not affect the width of the existing wildlife corridor or linkage, nor would it remove a substantial amount of vegetative cover. No barriers to wildlife movement are proposed as part of the project. No mitigation would be required.

Adherence to the recommended mitigation measures discussed in Sections 3.0 through 7.0 would ensure the proposed project would not significantly conflict with any local policies or ordinances protecting biological resources or with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

1.0 Introduction

1.1 Purpose of the Report

The purpose of this report is to document the biological resources identified as present or potentially present on the proposed site for the Sweetwater River Phase III Trail

Project; identify potential biological resource impacts resulting from the proposed project; and recommend measures to avoid, minimize, or mitigate significant impacts consistent with federal, state, and local rules and regulations including the California Environmental Quality Act (CEQA) and the Multiple Species Conservation Program (MSCP) County of San Diego Subarea Plan (County of San Diego 1997).

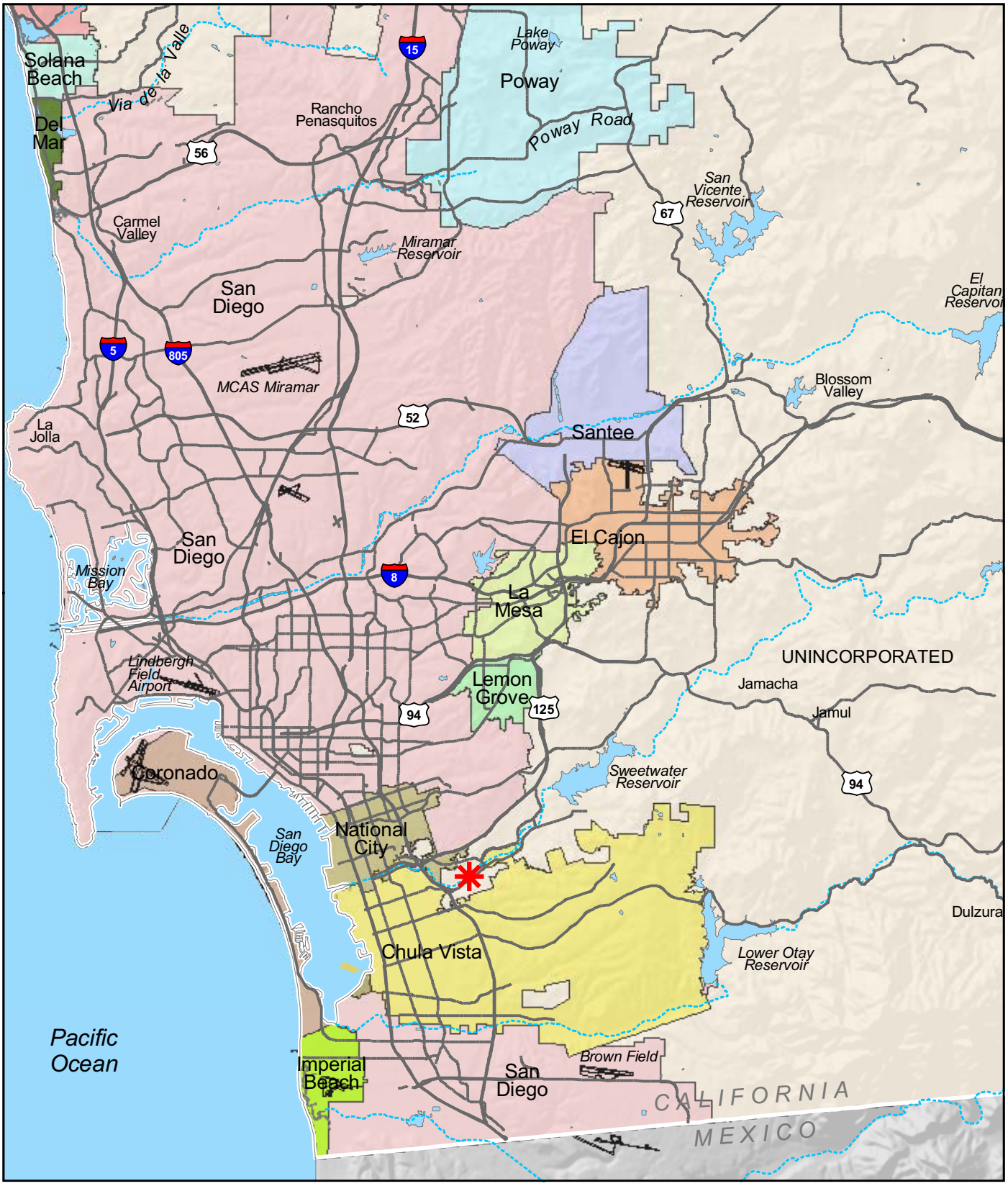
The impact analysis and recommended mitigation in this document are based on the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements (2008), and are consistent with the County's MSCP, the Sweetwater Regional Park Master Plan (County of San Diego 1989), and the Community Trails Master Plan (CTMP).

1.2 Project Location and Description

As part of a planned trail system under the County Trails Program, the proposed project is a multi-use trail (pedestrian, equestrian, bicycle) approximately one and one-half miles in length that will complete a link in a trail system that will eventually extend east from Interstate 805 to a loop trail around the Sweetwater Reservoir. The proposed project is located within the Sweetwater Regional Park (SRP) in the unincorporated communities of Bonita and Sunnyside in San Diego County (Figure 1). The site is shown on the U.S. Geological Survey (USGS) National City quadrangle, La Nación Landgrant (USGS 1975; Figure 2). The proposed trail will cross several parcels, all but one of which are owned by the County and are within the boundaries of the SRP. One small parcel that crosses the western portion of the proposed trail is currently owned by the Sweetwater Authority.

The proposed trail begins just east of the Willow Street Bridge, within the right of way for Sweetwater Road, and continues west under the Willow Street Bridge to terminate at the park's Western Staging Area (Figure 3). The proposed project will establish a trail along existing disturbed trails (non-designated), paths, and roadways wherever feasible and have a trail tread of native soil. In general, the trail will be eight feet wide and have a minimum horizontal clearance of two feet and vertical clearance of twelve feet. Within the County's Sweetwater Off-site Mitigation Area (SWOMA; Figure 4), the total width of the trail will be reduced to five feet, and 10-foot-long turnouts will be added at approximate 100-foot intervals to minimize impacts; vertical clearance requirements will remain at twelve feet. The existing foot-bridge (Photograph 1) will be replaced with a natural bottom dip section as part of the project to allow for users to cross the Sweetwater River.

Trail markers, intermediate markers, and lodge pole fencing will be used where necessary to encourage users to stay on the trails and to direct users to avoid sensitive biological resources. Trail markers will be placed at approximate one-quarter-mile increments along the route.



Project Location

FIGURE 1

Regional Location of the
Sweetwater River Phase III Trail Project

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Map Source: USGS 7.5 minute topographic map series, NATIONAL CITY quadrangle, LA NACION Landgrant

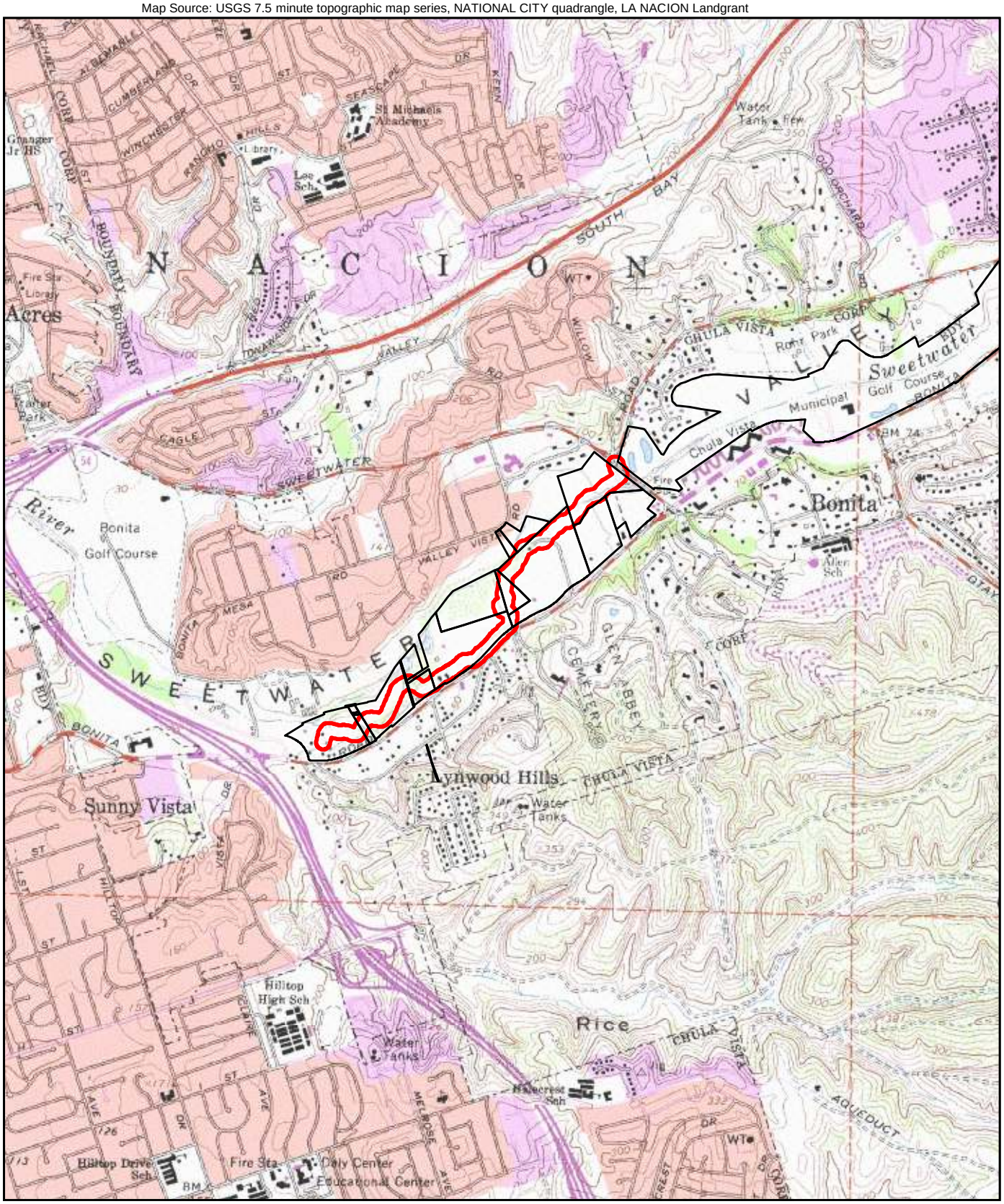

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FIGURE 2
Sweetwater River Phase III Trail
Project Location on USGS Map

Image source: Copyright GlobeXplorer, All Rights Reserved (flown April 2008)

Project Boundary

Contour Lines

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FIGURE 3

Sweetwater River Phase III Trail

Project Location on Aerial Photograph

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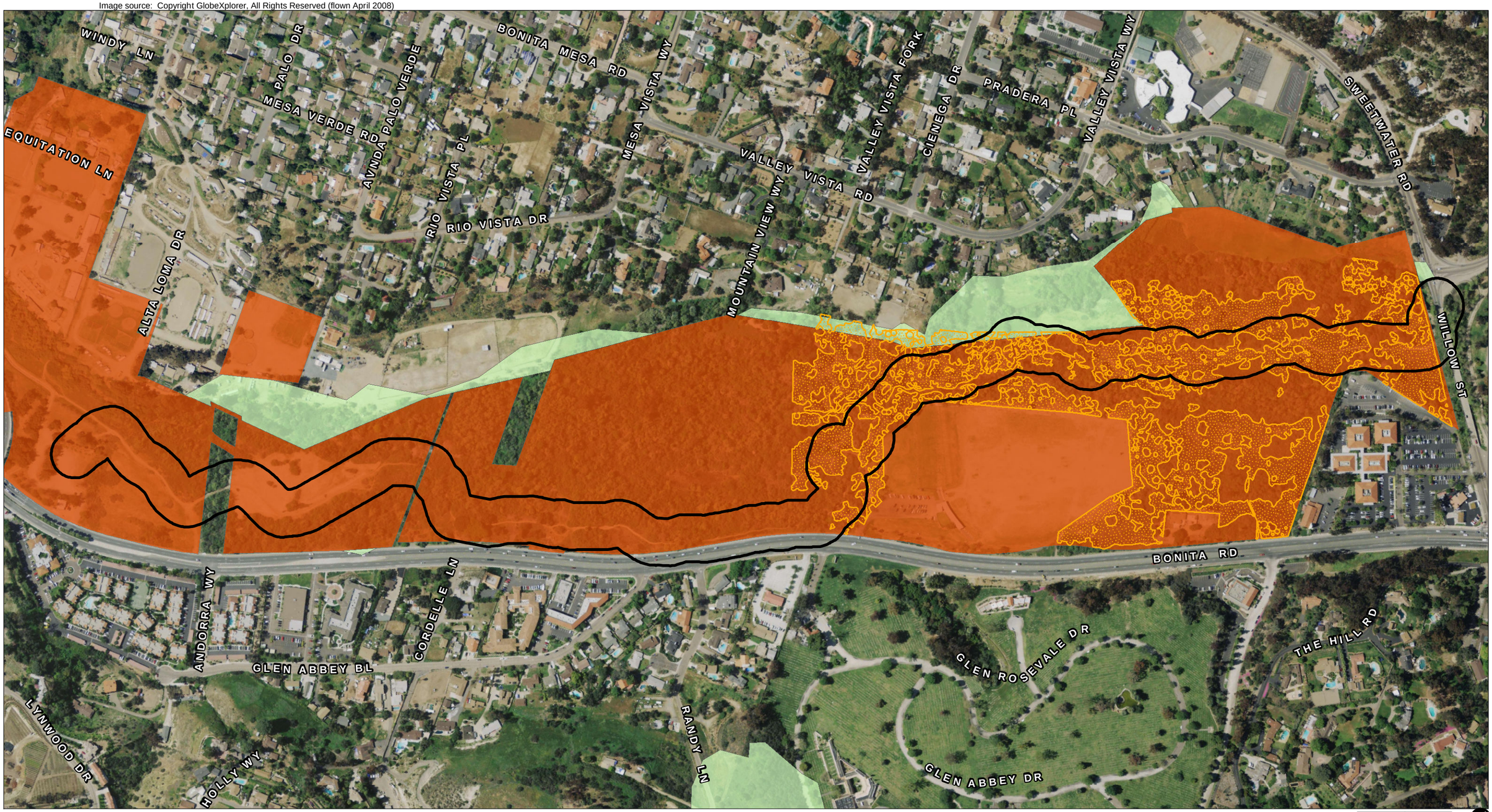

Project Boundary

Sweetwater Off-site Mitigation Area

COUNTY OF SAN DIEGO MSCP SUB AREA PLAN

Pre-Approved Mitigation Area

Take Authorized Area

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FIGURE 4

Sweetwater River Phase III Trail Project in Relation to
MSCP Preserve Area and Sweetwater Off-site Mitigation Area

PHOTOGRAPH 1
Existing Foot-bridge Proposed for Replacement

This portion of the SRP contains the County's SWOMA. A Memorandum of Agreement (MOA) with the U.S. Army Corps of Engineers (ACOE) was signed in July 1998 to establish a mitigation bank to enable the County to mitigate for impacts to jurisdictional resources incurred as part of County projects. The MOA allows for establishment of trails within the boundaries of the mitigation bank (Section II.12.b).

1.3 Survey Methods

Existing data regarding biological resources within the survey area were obtained through a literature review of applicable reference materials and field reconnaissance. The 33.2-acre survey area consists of the proposed trail footprint, the existing dirt path between the SRP Western Staging Area and the Willow Street Bridge, and a 100-foot buffer surrounding the center line of the existing dirt path. The primary objective of the field survey was to assess the existing conditions of the on-site biological resources. Fieldwork focused on four primary objectives: (1) vegetation mapping, (2) plant and wildlife species inventory, (3) assessment of the potential occurrence for sensitive species, and (4) delineation of jurisdictional resources.

1.3.1 Literature Review

Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (Jennings and Hayes 1994; Unitt 2004; State of California 2008a-d; California Native Plant Society [CNPS] 2001; Reiser 2001), existing topography and soils within the survey area (USGS 1975; U.S. Department of Agriculture [USDA] 1973), species occurrence records from the California Natural Diversity Database ([CNDDB]; State of California 2008e) and the All Species Occurrences Database (U.S. Fish and Wildlife Service [USFWS] 2008).

Additional literature reviewed includes the CTMP and the Sweetwater Regional Park Master Plan Major Use Permit (County of San Diego 1989).

1.3.2 Vegetation Mapping

RECON biologists Brenna Ogg and Debra Kinsinger mapped vegetation and conducted biological surveys within the 33.2-acre survey area on August 8 and September 2, 2008. Table 1 shows the dates, times, and weather conditions of surveys. The survey area includes the footprint of the proposed trail, the existing dirt path between the SRP Staging Area and the Willow Street Bridge, and a 100-foot buffer surrounding the center line of the existing dirt path. Vegetation communities were mapped on an aerial photograph (one inch equals 200 feet) flown in April 2008. The biologists covered all portions of the survey area on foot. Vegetation community classifications follow Holland (1986) as modified by Oberbauer (2005).

TABLE 1
SURVEY DATES, PERSONNEL, TIMES, AND WEATHER CONDITIONS FOR SURVEYS IN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA

Date	Survey Type	Surveyor(s)	Beginning Conditions	Ending Conditions
8/8/08	Vegetation Mapping; General biological survey; Wetland delineation.	Brenna Ogg Debra Kinsinger	9:00 A.M.; 73°F; winds 0-2 mph; 5% cloud cover	5:00 P.M.; 78°F; 1-5 mph; 0% cloud cover
9/2/08	General biological survey.	Brenna Ogg	10:55 A.M.; 76°F; winds 0-8 mph; 5% cloud cover	12:30 P.M.; 79°F; winds 0-8 mph; 5% cloud cover
9/15/08	Wetland delineation.	Debra Kinsinger	Not recorded	Not recorded
9/21/08	Wetland delineation.	Jennifer MacAller Jillian Bates	Not recorded	Not recorded

°F = degrees Fahrenheit; mph = miles per hour; % = percent.

1.3.3 Species Inventory and Assessment

All biological resources within the survey area were recorded and mapped according to the County's biological resource mapping requirements (County of San Diego 2008). All plant species observed on the property were noted, and plants that could not be identified in the field were identified later using taxonomic keys. Floral nomenclature for common plants follows Hickman (1993) as updated by the Jepson Online Interchange (Jepson Flora Project 2008) and for sensitive plants follows CNPS (2001). The survey included a directed search for sensitive plants that would have been apparent at the time of the survey, and the number of individuals observed was recorded. Limitations to the compilation of a comprehensive floral checklist were imposed by seasonal factors. The survey was conducted during summer. Therefore, some spring blooming species may not have been identifiable at the time of the survey.

Animal species observed directly or detected from calls, tracks, scat, nests, or other sign were noted. The wildlife surveys were limited by seasonal and temporal factors. As the survey was performed during summer, species that are only present during the winter (e.g., avian winter migrants) may not have been detected. Surveys were performed during the day; therefore, nocturnal animals were identified by sign that was apparent at the time of the survey. Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (1998) and Unitt (2004); for mammals, Baker et al. (2003) and Hall (1981); for amphibians and reptiles, Crother (2001) and Crother et

al. (2003); and for invertebrates, Evans (2007), Mattoni (1990), and Opler and Wright (1999).

1.3.4 Wetlands and Jurisdictional Waters Delineation

A routine wetland delineation, following the guidelines set forth by ACOE (1987, 2006), was performed to gather field data at potential wetland sites in the survey area. RECON biologist Debra Kinsinger conducted field work on August 23 and September 15, 2008. Jennifer MacAller and Jillian Bates completed the field work on September 21, 2008.

Prior to conducting the delineation, the USGS National City quadrangle topographic map and historical aerial photographs were examined. Once on-site, the potential jurisdictional areas were examined to determine the presence of any of the three wetland parameters or drainage channels. The remainder of the survey area was also examined in the field for the presence of potential waters of the U.S.

Surveyors used Trimble GPS in the field to mark riparian and wetland features on both sides of the trail as well as culvert crossings and bridges. GPS data was transferred to ArcGIS and overlaid onto 2008 aerial photographs provided through the RECON license with GlobeExplorer. The boundaries of wetlands were taken from a combination of GPS data and delineations made directly on the aerial photo in the field. The delineation uses soil data provided by the Natural Resource Conservation Service's (NRCS) Soil Survey Geographic (SSURGO) Database and data from the CNDDB to correlate field observations with known locations of sensitive riparian plants and soils influenced by fluvial activity. The jurisdictional delineation report was prepared as a separate document (RECON 2008).

1.4 Environmental Setting

The survey area is located along existing disturbed trails (non-designated) and paths within the Sweetwater River corridor. The area immediately surrounding the survey area is largely undeveloped, except for the SRP western staging area at the west end and a driving range south of the eastern portion of the survey area. The portion of the Sweetwater River corridor that contains the survey area is immediately surrounded by urban development to the north and south, parallels Bonita Road to the south, and is bordered by Willow Street to the east (see Figure 3).

Elevation of the survey area ranges from approximately 40 to 75 feet above mean sea level. The elevation varies little throughout and decreases gradually from east to west, following the flow of the river.

The survey area is located within the floodplain of the Sweetwater River and intersects a braided channel system at multiple points along the existing and proposed trail. At some

channel crossings, corrugated metal pipe culverts have been installed to direct flow beneath the trail, whereas some areas show sign of water crossing and frequent inundation.

Five soil series–Tujunga, Riverwash, Salinas, Olivenhain, and Terrace Escarpments–are mapped within the survey area (USDA 1973). Of these, Tujunga and Riverwash are hydric or potentially hydric soils, and Salinas and Olivenhain are clay soils. All four are indicative of potentially sensitive habitat.

Tujunga sand, zero to five percent slopes (TuB), is the dominant soil type throughout the eastern portion of the survey area. Tujunga soils are derived from granitic parent material that occurs on alluvial fans and floodplains. Tujunga sand texture may vary from coarse sand to loamy fine sand. This soil has very rapid permeability and slow runoff. It is excessively drained, but short periods of flooding are probable (USDA 1973).

Riverwash (Rm) is the dominant soil type throughout the western portion of the survey area. Riverwash occurs in intermittent stream channels and typically consists of sand, gravel, or cobble. Riverwash soil may be devoid of vegetation in many places, or may contain sparse patches of shrubs and forbs. The soil is rapidly permeable and excessively drained (USDA 1973).

Salinas clay, zero to two percent slopes (ScA), is mapped in two sections of the western portion of the survey area, adjacent to or beneath Bonita Road and the SRP staging area. Salinas soils consists of well- to moderately well-drained clay loams that formed in sediments washed from Diablo, Linne, Las Flores, Huerhuero, and Olivenhain soils. Salinas clay has a surface layer of clay with a substratum of clay to clay loam. The soil drains moderately well with slow permeability (USDA 1973).

Olivenhain cobbly loam, nine to 30 percent slopes (OhE), is mapped within the easternmost tip of the survey area, largely beneath paved roads. Olivenhain soils formed in old gravelly and cobbly alluvium and consist of well-drained, moderately deep to deep cobbly loams with a cobbly clay subsoil. This soil is strongly sloping to moderately steep (USDA 1973).

Terrace Escarpments (TeF) are mapped within the easternmost tip of the survey area. Terrace Escarpments are steep formations on the nearly even fronts of terraces and alluvial fans. These landscapes occur between flood plains and the steep sides of drainages that are being entrenched into the level uplands. The soil on terrace escarpments is typically loamy or gravelly and four to ten inches thick over soft marine parent material (USDA 1973).

1.4.1 Regional Context

The proposed project site is within the boundaries of the MSCP County of San Diego Subarea Plan, and the majority of the survey area (approximately 29.8 acres) occurs within a Take Authorized Area for the County of San Diego Sweetwater Regional Park. This authorizes take of covered species and their habitats (outside of ACOE jurisdictional areas) associated with on-going management and development of County Park Lands that are consistent with existing park development plans at the time of adoption of the Subarea Plan in 1997 (County of San Diego 1997).

The survey area is located within the southwestern portion of the Sweetwater Watershed. The Sweetwater River continues west from the survey area through urban development and empties into the San Diego Bay, approximately three-and-one-half miles downstream.

1.4.2 Habitat Types/Vegetation Communities

Seven vegetation communities–southern arroyo willow riparian forest, southern cottonwood-willow riparian forest, southern willow scrub, coastal brackish marsh, disturbed Diegan coastal sage scrub, disturbed habitat, and non-native vegetation–were identified within the survey area. A portion of the southern willow scrub habitat is within an existing habitat restoration site known as the Central Avenue Flood Control Mitigation site. Disturbed land and urban/developed land are also present within the survey area. Figures 5a and 5b provide locations of each habitat type in the survey area. Table 2 lists the vegetation communities with their respective sensitivity tiers (County of San Diego 1997) and acreages.

Image source: Copyright GlobeXplorer, All Rights Reserved (flown April 2008)

Survey Area

Parcels

Spiny Rush
(Juncus acutus ssp. *leopoldii)*

VEGETATION COMMUNITIES

Coastal Brackish Marsh

Disturbed Coastal Sage Scrub

Disturbed Habitat

Non-Native Vegetation

Southern Arroyo Willow Riparian Forest

Southern Willow Scrub

Existing Dirt Path

Urban/Developed

Existing Restoration Area

0 Feet 200

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FIGURE 5a

Existing Biological Resources within the Sweetwater River Phase III Trail Survey Area

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Survey Area
Parcels

VEGETATION COMMUNITIES

- Disturbed Coastal Sage Scrub
- Non-Native Vegetation
- Southern Arroyo Willow Riparian Forest
- Southern Cottonwood-Willow Riparian Forest
- Southern Willow Scrub
- Existing Dirt Path
- Urban/Developed

0 Feet 200

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FIGURE 5b
Existing Biological Resources within the
Sweetwater River Phase III Trail Survey Area

TABLE 2
HABITAT TYPES/VEGETATION COMMUNITIES WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA (acres)

Type or Community (Holland Code as modified by Oberbauer)	Sensitivity Tier	Survey Area
Southern arroyo willow riparian forest (61320)	I	20.0
Southern cottonwood-willow riparian forest (61330)	I	0.3
Southern willow scrub (63320)	I	6.5
Coastal brackish marsh (52200)	I	0.3
Disturbed Diegan coastal sage scrub (32510)	II	0.2
Disturbed habitat (11300)	IV	1.0
Non-native vegetation (11000)	IV	2.0
Disturbed land (13000)	IV	1.1
Urban/Developed (12000)	IV	1.8
TOTAL	-	33.2

1.4.2.1 Southern Arroyo Willow Riparian Forest

Southern arroyo willow riparian forest is a dense, closed-canopy, broad-leafed winter-deciduous riparian community dominated by arroyo willow (*Salix lasiolepis*). This plant community is typically found along rivers and streams, where the soil is moist to saturated with sandy or gravelly soil (Holland 1986).

Southern arroyo willow riparian forest occurs throughout the majority of the survey area (see Figures 5a and 5b). The habitat is dense and dominated by arroyo willow, red willow (*Salix laevigata*), and black willow (*S. gooddingii*) (Photograph 2). Native shrubs such as narrow-leaved willow (*S. exigua*) and mule fat (*Baccharis salicifolia*) are common within the understory, and non-native tree species such as Washington palm (*Washingtonia robusta*) and pepper trees (*Schinus molle* and *S. terebinthifolius*) are scattered throughout. In areas that are frequently inundated, freshwater marsh species such as broad-leaved cattail (*Typha latifolia*) and yerba mansa (*Anemopsis californica*) form dense stands. Multiple small areas adjacent to the existing dirt path appear to have experienced high disturbance, and therefore lack the willow canopy and are dominated by non-native ruderal species such as short-pod mustard (*Hirschfeldia incana*) and tocolote (*Centaurea melitensis*).

PHOTOGRAPH 2
Southern Arroyo Willow Riparian Forest, Facing Northeast
Along Existing Dirt Path

1.4.2.2 Southern Cottonwood-willow Riparian Forest

Southern cottonwood-willow riparian forest is a tall, open, broad-leafed winter-deciduous riparian community dominated by cottonwood (*Populus* spp.) and willow trees. The understory typically consists of shrubby willows. This plant community is typically found along rivers and streams, where there is groundwater and frequent overflows (Holland 1986).

Southern cottonwood-willow riparian forest occurs within the easternmost portion of the survey area (see Figure 5b). Cottonwood trees (*Populus fremontii*) form the uppermost canopy with willow trees–including arroyo, red, and black willow–dominating the remaining canopy (Photograph 3). Native understory species and non-native tree species similar to those found within the southern arroyo willow riparian forest habitat described above are scattered throughout.

1.4.2.3 Southern Willow Scrub

Southern willow scrub is a dense riparian community dominated by broad-leafed, winter-deciduous willow trees (*Salix* spp.). This vegetation community is typically found along major drainages but also occurs in smaller drainages. The density of the willows typically prevents a dense understory of smaller plants from growing. The representative species typically grows in loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. This community requires repeated flooding to prevent succession to community dominated by sycamores and/or cottonwoods (Holland 1986).

Southern willow scrub occurs intermittently along the survey area, where the canopy of arroyo and black willows is absent within the western and eastern extents of the survey area (see Figures 5a and 5b). The habitat is dense and averages ten to fifteen feet high (Photograph 4). Narrow-leaved willow is the dominant species, and native species such as mule fat and coyote bush (*Baccharis pilularis)* are common throughout (Photograph 5).

1.4.2.4 Coastal Brackish Marsh

Coastal brackish marsh is similar to a coastal salt marsh, but is influenced by the influx of freshwater. This community is typically dominated by herbaceous perennial plants that average two meters tall. Salinity varies in the marsh based on tidal flows and proximity to salt marshes, freshwater run off, or the ocean (Holland 1986).

PHOTOGRAPH 3
Southern Cottonwood-willow Riparian Forest in Background within Easternmost Section of the Survey Area, Facing North

PHOTOGRAPH 4
Southern Willow Scrub within Western Portion of Survey Area, Facing West from Existing Dirt Path

PHOTOGRAPH 5
Southern Willow Scrub Restoration Site,
Facing North from Existing Dirt Path

PHOTOGRAPH 6
Coastal Brackish Marsh within Central Portion of Survey Area, Facing
Northeast from Existing Dirt Path

A small patch of remnant coastal brackish marsh is located within the central portion of the survey area at the base of the berm for Bonita Road (see Figure 5a). The existing dirt path intersects the marsh. The marsh lacks a riparian tree canopy, and the vegetation is dominated by low-lying native marsh species such as pickleweed (*Salicornia* sp.), yerba mansa, alkali heath (*Frankenia salina*), and saltgrass (*Distichlis spicata*) with scattered spiny rush (*Juncus acutus*) (Photograph 6). Non-native trees and herbs are also scattered throughout and include tamarisk (*Tamarix* sp.), Peruvian pepper tree, and prickly lettuce (*Lactuca serriola*).

1.4.2.5 Disturbed Diegan Coastal Sage Scrub

Diegan coastal sage scrub is the southern form of coastal sage scrub, a vegetation community comprised of low-growing, aromatic, drought-deciduous soft-woody shrubs that have an average height of approximately three to four feet. This community is typically found on sites with low moisture-availability, steep, xeric slopes or clay rich soils that are slow to release stored water. Diegan coastal sage scrub is found in coastal areas from Los Angeles County south into Baja California, Mexico (Holland 1986).

Disturbed Diegan coastal sage scrub habitat occurs within the central portion of the survey area adjacent to the coastal brackish marsh, along the berm for Bonita Road (see Figures 5a and 5b). Native shrub species such as coast goldenbush (*Isocoma menziesii*), lemonadeberry (*Rhus integrifolia*), and coyote bush are scattered amongst non-native ruderal species such as short-pod mustard, Russian thistle (*Salsola tragus*), and tree tobacco (*Nicotiana glauca*) (Photograph 7).

1.4.2.6 Disturbed Habitat

Disturbed habitat occurs within the western portion of the survey area and in a small patch along the berm for Bonita Road, south of the existing dirt path (see Figure 5a). The vegetation within the western portion is sparse and dominated by low-lying herbaceous species including native California sun cup (*Camissonia bistorta*) and non-native short-pod mustard and filaree (*Erodium* sp.) (Photograph 8). The vegetation within the central portion of the survey area adjacent to Bonita Road is denser and is heavily dominated by ruderal species such as short-pod mustard and Russian thistle, with one native shrub species, coast goldenbush, scattered throughout.

1.4.2.7 Non-native Vegetation

Non-native ornamental and invasive species are scattered throughout the survey area. However, the westernmost portion of the survey area, a section of the central portion of the survey area adjacent to Bonita Road, and the portion of the survey area that overlaps a driving range, are heavily dominated by non-native ornamental species (see Figures 5a and 5b). The westernmost survey area is landscaped with tall ornamental

PHOTOGRAPH 7
Disturbed Diegan Coastal Sage Scrub within Central Portion of Survey Area, Facing Northeast from Existing Dirt Path

PHOTOGRAPH 8
Disturbed Habitat within Western Portion of Survey Area, Facing East from Existing Dirt Path

tree species. The area adjacent to Bonita Road varies from an ornamental ground cover of Hottentot fig (*Carpobrotus edulis*), with scattered ornamental trees such as Washington palms, pepper trees, and tree of heaven (*Ailanthus altissima*), to a dense stand of tall pine trees with little understory growth (Photograph 9). The manicured lawn within the driving range consists of low-lying, maintained non-native grass species.

1.4.2.8 Disturbed Land

The existing dirt path within the survey area is classified as disturbed land, as continued passive recreational use prevents vegetative growth within the trail (see Figures 5a and 5b).

1.4.2.9 Urban/Developed Land

The roadways and parking areas within the survey area are mapped as urban/developed land (see Figures 5a and 5b). This includes Bonita Road, Willow Street, and the SRP western staging area.

1.4.3 Flora

The majority of the survey area is characterized by riparian habitat. A total of 83 plant species have been identified within the survey area. Of this total, 41 (49 percent) species are known to be native to southern California, and 42 (51 percent) species are introduced. See Attachment 1 for a complete list of plant species identified within the proposed project site. Sensitive species are discussed in the Section 1.4.5 of this report.

1.4.4 Fauna

The wildlife observed within the survey area is typical of urban and riparian communities in San Diego County. See Attachment 2 for a complete list of wildlife species identified on the site. Sensitive species observed or potentially occurring within the survey area are discussed in Section 1.4.6 of this report.

1.4.4.1 Butterflies

The distribution of butterflies is generally defined by the distribution of their larval food plants. Species common to urban and riparian communities are expected to be the most common butterfly species within the survey area. Five butterfly species, western tiger swallowtail (*Papilio rutulus*), common white (*Pontia protodice*), Lorquin's admiral (*Limenitis lorquini lorquini*), cabbage white (*Pieris rapae*), and western tailed blue (*Everes amyntula*), were observed within the survey area.

PHOTOGRAPH 9
Non-native Vegetation, Facing South Along Existing Dirt Path

1.4.4.2 Amphibians

Amphibians require moisture for at least a portion of their life cycle, with many requiring a permanent water source for habitat and reproduction. Terrestrial amphibians have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. These species avoid desiccation by burrowing beneath the soil or leaf litter during the day and during the dry season.

The occurrence of wetland vegetation, such as broad-leaved cattail, within the understory of the riparian forest indicates the presence of perennial water sources throughout the survey area. Multiple channels intersect the existing dirt path and provide ephemeral water sources as well. Although no amphibians were observed, the common Pacific chorus frog (*Pseudacris regilla*) and western toad (*Bufo boreas halophilus*) have the potential to occur due to the presence of permanent water sources within the survey area.

1.4.4.3 Reptiles

The diversity and abundance of reptile species vary with habitat type. Many reptiles are restricted to certain vegetation communities and soil types, although some of these species will also forage in adjacent communities. Other species are more ubiquitous, using a variety of vegetation types for foraging and shelter.

One reptile species, western fence lizard (*Sceloporus occidentalis*), was observed within the survey area. In addition, the common side-blotched lizard (*Uta stansburiana*) and California kingsnake (*Lampropeltis getula californiae*) are expected to occur.

1.4.4.4 Birds

The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities present on a site. The survey area is dominated by riparian habitat. It contains small patches of wetland habitat, ornamental vegetation, and upland plant species, both native and non-native. The riparian corridor in which the survey area is located is ultimately surrounded by development.

The most commonly observed species within the survey area are typical of urban habitats and include house finch (*Carpodacus mexicanus frontalis*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura marginella*), northern mockingbird (*Mimus polyglottos polyglottos*), and lesser goldfinch (*Carduelis psaltria hesperophilus*). In addition, several species typical of woodland habitats, including hooded oriole (*Icterus cucullatus nelsoni*), Nuttall's woodpecker (*Picoides nuttallii*), and western scrub jay (*Aphelocoma californica*), were observed.

1.4.4.5 Mammals

Mammal species detected are those that are typically found in urban or riparian communities within San Diego County. Two common species, cottontail rabbit (*Sylvilagus audubonii*) and coyote (*Canis latrans*), were detected within the survey area. Other common species such as California ground squirrel (*Spermophilus beecheyi*) are expected to occur.

1.4.5 Sensitive Plant Species

One sensitive plant species, spiny rush, was observed within the survey area. Two sensitive plant species, singlewhorl burrobrush and San Diego sagewort, have a high potential to occur within the survey area. Attachment 3 summarizes the sensitive plants with the potential to occur within the survey area based on known ranges, habitat preferences for the species, species occurrence records from the CNDDB, and species occurrence records from other sites in the vicinity of the project site.

1.4.5.1 Plant Species Observed

Spiny rush (*Juncus acutus* ssp. *leopoldii*). Spiny rush is a CNPS (2001) List 4 species and a County of San Diego List D species. This perennial herb in the rush family (Juncaceae) has basal leaves and stout stems that form large tufts up to five feet tall, blooming in May and June (Munz 1974). Spiny rush grows in coastal salt marshes and dunes from San Luis Obispo County south to Baja California and in meadows and alkaline seeps in Imperial County and Arizona (CNPS 2001). It may also grow along riparian drainages, in palm oases, or "[w]herever water can pond along substantial seasonal drainages" (Reiser 2001).

Twelve individual spiny rush plants were observed within the southern willow scrub restoration site, coastal brackish marsh, and the understory of the southern arroyo willow riparian forest in the survey area. All spiny rush plants were observed outside the proposed trail footprint. The individuals were scattered and located adjacent to areas that are frequently inundated with water. The largest grouping of individual plants was observed within the coastal brackish marsh and consisted of five individuals. A total of five individuals, consisting of one grouping of three and two lone individuals, were observed within the riparian forest. Two individuals were observed along a channel within the existing Central Avenue Flood Control Mitigation (see Existing Restoration Area, Figure 5a). See Attachment 4 for a copy of the CNDDB report submitted to CDFG.

This species is known to occur as a common species along the Sweetwater River in Bonita (Reiser 2001). Therefore, the few individual spiny rush within the survey area have low regional significance.

1.4.5.2 Plant Species Not Observed with Potential to Occur

Singlewhorl burrobrush (*Ambrosia monogyra*). Singlewhorl burrobrush is a CNPS List 2 species. This shrub in the sunflower family (Asteraceae) has slender stems, narrow leaves, and large inflorescences that bloom from August to November (Munz 1974). Singlewhorl burrobrush is found in the southwestern United States from California to Texas as well as within northern Mexico (Hickman 1993). This species occurs in washes and dry riverbeds (Hickman 1993).

Singlewhorl burrobrush has a high potential to occur within the proposed project site due to the presence of suitable riparian habitat and the known occurrence of this species in the immediate vicinity of the survey area (State of California 2008e). However, as this species was not observed during surveys, any population that may occur within the proposed project site is expected to be small and isolated.

San Diego sagewort (*Artemisia palmeri*). San Diego sagewort is a CNPS List 4 species and a County of San Diego List D species. This perennial in the sunflower family grows as a series of long wand-like stems from the base and blooms from July to September (Munz 1974). It is found in San Diego County and northern Baja California, Mexico (CNPS 2001). In San Diego County, its distribution ranges from La Jolla south to Otay and east to Alpine (Beauchamp 1986). In coastal areas it occurs mostly near creeks and drainages; where it can occur in low numbers in dense riparian vegetation and may be difficult to detect. Further inland, it may occur in mesic chaparral vegetation, such as that found on the north-facing slopes (Reiser 2001).

San Diego sagewort has a high potential to occur within the proposed project site due to the presence of suitable riparian habitat and sandy soils. This species should have been apparent if present during surveys, due to the surveys being conducted during the blooming season; however, it was not observed.

1.4.6 Sensitive Wildlife Species

One raptor species, red-shouldered hawk, was observed within the survey area. Sensitive wildlife species that have a high potential to occur within the survey area include Cooper's hawk and other tree-nesting raptor species, least Bell's vireo, western bluebird, yellow warbler, and yellow-breasted chat. Attachment 5 summarizes additional sensitive wildlife species that have a potential to occur based on known ranges, habitat preferences for the species, species occurrence records from the CNDDB, and species occurrence records from other sites in the vicinity of the project site.

1.4.6.1 Wildlife Species Observed

Red-shouldered hawk (*Buteo lineatus elegans*). Raptors and active raptor nests are protected by the California Fish and Game (CDFG) Code 3503 (State of California 1991). One adult red-shouldered hawk (*Buteo lineatus elegans*) was observed within riparian forest habitat during the surveys. The palm, eucalyptus, and coast live oak trees within the survey area and within the proposed project site provide suitable nesting and roosting habitat for this species and other tree-nesting raptor species such as red-tailed hawk (*Buteo jamaicensis*) and Cooper's hawk (*Accipiter cooperii*). Cooper's hawk is discussed in more detail below.

1.4.6.2 Wildlife Species Not Observed with Potential to Occur

Cooper's hawk (*Accipiter cooperii*). The Cooper's hawk is a CDFG Species of Special Concern, an MSCP covered species, and a County of San Diego Group 1 species. Cooper's hawk nesting sites are considered sensitive by CDFG. The Cooper's hawk ranges year-round throughout most of the United States; its wintering range extends south to Central America and its breeding range extends north to southern Canada (Rosenfeld and Bielefeldt 1993). It is a common breeder in both natural and urban environments, with eucalyptus trees used nearly as often as oaks (Unitt 2004). This hawk mainly breeds in oak and willow riparian woodlands but will also use eucalyptus trees. Breeding occurs from March to July. This hawk forages primarily on medium-sized birds but is also known to eat small mammals such as chipmunks and other rodents (Rosenfeld and Bielefeldt 1993). The decline of this species had been caused by urbanization and loss of habitat. However, during the last 20 years, the Cooper's hawk has apparently adapted to city living (Unitt 2004).

Cooper's hawk has a high potential to nest throughout the survey area and within the proposed project site due to the presence of suitable nesting habitat. The palm, eucalyptus, and coast live oak trees within the survey area and within the proposed project site provide suitable nesting and roosting habitat for this species and other tree-nesting raptors, such as red-shouldered hawk and red-tailed hawk.

Least Bell's vireo (*Vireo bellii pusillus*). The least Bell's vireo is federally and state listed as endangered, is an MSCP narrow endemic and covered species, and is a County of San Diego Group 1 species. Its historical breeding range once extended from northwestern Baja California, Mexico, to interior northern California, as far north as Red Bluff in Tehama County, California (Franzreb 1989). Its current distribution is now restricted to eight southern counties, the majority occurring in San Diego County (USFWS 1998). Least Bell's vireo winters in Mexico and breeds in southern California and northern Baja California, Mexico. The species is exclusively found in riparian habitats, including cottonwood-willow woodlands and forests, oak woodlands, and mule fat scrub and requires dense cover for nesting (USFWS 1998). Least Bell's vireo arrives

at the breeding grounds in mid-March and remains until September or October. Their diet consists primarily of insects and spiders and some fruit (Brown 1993).

Populations of least Bell's vireo have declined drastically due to extensive loss of riparian habitat to agricultural and urban development, including channelization and mining of streams, and nest parasitism by brown-headed cowbirds (*Molothrus ater*). The population has increased as a result of extensive brown-headed cowbird trapping programs.

Least Bell's vireo has a high potential to occur throughout the survey area and within the proposed project site, due to the presence of suitable riparian forest and scrub habitat. There are two recorded occurrences of this species within two miles of the survey area along the Sweetwater River (State of California 2008e).

Western bluebird (*Sialia mexicana*). The western bluebird is recognized as a locally rare species, an MSCP covered species, and a County of San Diego Group 2 species. Western bluebirds occur throughout the year in foothills and mountains of San Diego County and are also residents of the more inland parts of the coastal lowland (Unitt 2004). The western bluebird breeds in open woodlands of oaks, riparian deciduous trees, or conifers with herbaceous understory and, in winter, uses more open habitats (Unitt 2004). Their typical breeding season is from March to July, and they typically produce eggs from early April through the end of June (Unitt 2004). Western bluebirds generally require trees and shrubs for cover and will nest and roost in cavities of trees or snags. In the non-breeding season, western bluebirds will supplement their diet with berries of mistletoe, poison oak, and elderberry, among other species, and the presence of mistletoe berries may govern local occurrence in winter (Grinnell and Miller 1944). Competition for nesting cavities from non-native European starlings (*Sturnus vulgaris*) and house sparrows (*Passer domesticus*) threaten western bluebirds (Zeiner et al. 1990).

Western bluebird has a high potential to nest throughout the survey area and within the proposed project site due to the presence of suitable riparian forest habitat. This species is known to nest in the vicinity of the survey area (Unitt 2004).

Yellow warbler (*Dendroica petechia brewsteri*). The yellow warbler is a CDFG Species of Special Concern and a County of San Diego Group 2 species. Yellow warblers breed from Alaska south to Peru, including most of the continental United States and Canada, and winter in Central and South America. In California, yellow warblers are an obligate riparian species, nesting and foraging almost exclusively in riparian habitats (Harmsworth Associates 1999). Yellow warblers are common breeders throughout San Diego County. Nesting occurs from late May through early August, and nests are typically three to five feet from the ground (Lowther et al. 1999). Yellow warblers primarily consume insects and other arthropods and occasional wild fruits. This

species is declining due to the loss of riparian habitat and as a result of nest parasitism by brown-headed cowbirds.

Yellow warbler has a high potential to nest throughout the survey area and within the proposed project site due to the presence of suitable riparian habitat.

Yellow-breasted chat (*Icteria virens*). The yellow-breasted chat is a CDFG Species of Special Concern and a County of San Diego Group 1 species. Yellow-breasted chat's breeding range extends from southern California south to central Mexico; their range includes most of the United States (Eckerle and Thompson 2001). Yellow-breasted chats arrive in California to breed during April or May. Breeding occurs in dense brush or scrub, usually along streams or marshy areas with dense riparian woodlands. Their diet consists mainly of insects and berries (Eckerle and Thompson 2001). Destruction of riparian woodlands by development and other human activities has caused population decline, and it is possible that brown-headed cowbird parasitism may also have contributed to the decline of the species.

Yellow-breasted chat has a high potential to nest throughout the survey area and within the proposed project site due to the presence of suitable riparian habitat. This species is known to nest along the Sweetwater River (Unitt 2004).

1.4.7 Wetlands/Jurisdictional Waters

The results of the jurisdictional delineation are shown in Figures 6a and 6b (ACOE) and 7a and 7b (CDFG). The main channel of the Sweetwater River is approximately 15 to 20 feet wide as it enters the survey area from the east. In September 2008, slow flowing, almost stagnant water was observed within the channel, approximately one to two feet deep throughout the eastern third of the survey area. The surface water becomes subsurface adjacent to the western side of the driving range that exists on the south side of the river. Downstream of this location the channel becomes more braided, and at least two distinct channels are evident.

In the eastern half of the survey area, wetland sites occur on each side of the main channel, extending approximately 20 feet at most locations. Typically, wetlands occur on the small terraces of the river. A large floodplain and associated riparian habitat extends beyond the wetlands. As the river continues to the western half of the survey area, wetland habitat increases in width as multiple channels meander through the site.

A total of 9.95 acres of ACOE jurisdictional resources were delineated on-site. Wetland sites, which total 9.05 acres, exhibited positive indicators of each of the three criteria: hydrophytic vegetation, hydric soils, and wetland hydrology. Non-wetland waters of the U.S., totaling 0.90 acre, were also delineated on-site. On the eastern half of the site, two locations were noted where erosion had occurred along the trail. These areas were assessed as potential non-wetland waters; however, no connection to the main channel

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Survey Area

Test Pit

Culvert

JURSIDICTIONAL WATERS/ WETLANDS

ACOE Non-wetland Water

ACOE Wetland

RECON

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FIGURE 6a

Existing ACOE Jurisdictional Resources within the Sweetwater River Phase III Trail Survey Area

Image source: Copyright GlobeXplorer, All Rights Reserved (flown April 2008)

Survey Area

Test Pit

Culvert

JURSIDICTIONAL WATERS/ WETLANDS

ACOE Non-wetland Water

ACOE Wetland

RECON

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FIGURE 6b

Existing ACOE Jurisdictional Resources within the Sweetwater River Phase III Trail Survey Area

Image source: Copyright GlobeXplorer, All Rights Reserved (flown April 2008)

Survey Area

Test Pit

Culvert

JURISDICTIONAL WATERS

CDFG Streambed

CDFG Riparian Habitat

RECON

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FIGURE 7a

Existing CDFG Jurisdictional Resources within the Sweetwater River Phase III Trail Survey Area

Image source: Copyright GlobeXplorer, All Rights Reserved (flown April 2008)

Survey Area

Test Pit

Culvert

JURISDICTIONAL WATERS

CDFG Streambed

CDFG Riparian Habitat

RECON

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FIGURE 7b

Existing CDFG Jurisdictional Resources within the Sweetwater River Phase III Trail Survey Area

was observed, and it was determined that the erosion at these sites was likely caused by off-trail biking or horseback riding.

CDFG jurisdictional resources were also delineated on-site. CDFG jurisdiction totals 26.82 acres, which includes the 9.05 acres of ACOE wetlands, 0.90 acre of streambed (equal to the ACOE non-wetland waters), and an additional 16.87 acres of riparian habitat outside the ordinary high water mark. The RWQCB takes jurisdiction over all waters of the state and all waters of the United States as mandated by both the federal Clean Water Act (CWA) and the California Porter-Cologne Water Quality Control Act. Therefore, a total of 26.82 acres of the survey area is within the RWQCB jurisdiction.

TABLE 3
JURISDICTIONAL RESOURCES IN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA

Jurisdictional Resources	Acres
ACOE Resources	
Non-wetland waters	0.90
Wetland	9.05
CDFG/RWQCB Resources	
Streambed*	0.90
Riparian habitat**	25.92

* CDFG streambed is the same as ACOE non-wetland waters in the survey area.

** Riparian habitat includes the 9.05 acres of ACOE wetland.

1.4.8 Habitat Connectivity and Wildlife Corridors

Wildlife movement corridors and habitat linkages are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Corridors are generally local pathways connecting short distances usually covering one or two main types of vegetation communities. Linkages are landscape level connections between very large core areas and generally span several thousand feet and cover multiple habitat types. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors and linkages for wildlife travel. The habitat connectivity provided by corridors and linkages is important in providing access to mates, food, and water, allowing the dispersal of individuals away from high population density areas, and facilitating the exchange of genetic traits between populations (Beier and Loe 1992).

The riparian vegetation communities that are present within the survey area provide cover and facilitate large terrestrial wildlife movement through the area. The survey area is part of an undeveloped expanse of land that provides direct connectivity along the

Sweetwater River corridor between the Sweetwater Reservoir and the Pacific Ocean. However, the proposed trail will be wholly located within areas designated as Take Authorized.

1.5 Applicable Regulations

The following County, state, and federal environmental regulations apply to the proposed project:

Migratory Bird Treaty Act. The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 CFR 10.13. The regulatory definition of "migratory bird" is broad and includes any mutation or hybrid of a listed species and includes any part, egg, or nest of such birds (50 CFR 10.12). Migratory birds are not necessarily federally-listed endangered or threatened birds under the Endangered Species Act. The MBTA, which is enforced by USFWS, makes it unlawful "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird, or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11).

Federal Water Pollution Control Act (Clean Water Act; CWA), 1972. The CWA provides a structure for regulating discharges into the waters of the U.S. Through this Act, the Environmental Protection Agency is given the authority to implement pollution control programs. These include setting wastewater standards for industry and water quality standards for contaminants in surface waters. The discharge of any pollutant from a point source into navigable waters is illegal unless a permit under its provisions is acquired. The U.S. Army Corps of Engineers is responsible for implementing Section 404 of the CWA (discharge of dredge/fill). In California, the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB) are responsible for implementing Section 401 (water quality) of the CWA.

California Environmental Quality Act (CEQA). CEQA provides guidelines for defining impacts. Appendix G of the guidelines contains questions that local jurisdictions should evaluate when analyzing a project's potential impacts. CEQA provides these guidelines so that local jurisdictions are able to determine what constitutes an "adverse effect" and significant impact to a biological resource.

California Fish and Game Code, Section 1600. Under Section 1602 of the Fish and Game Code, CDFG regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports

fish or wildlife. CDFG has jurisdiction over riparian habitats (e.g., southern arroyo willow riparian forest, southern cottonwood-willow riparian forest, and southern willow scrub) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFG jurisdiction does not include tidal areas or isolated resources.

Porter-Cologne Water Quality Control Act. The act provides for statewide coordination of water quality regulations. The California SWRCB was established as the statewide authority, and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis and administer Section 401 of the CWA.

San Diego County General Plan – Conservation Element (Part X). The Conservation Element of the General Plan (Chapters 3 and 4) addresses County policies relating to water, vegetation, and wildlife habitat.

Multiple Species Conservation Program (MSCP). The MSCP is a long-term regional conservation plan, covering 12 jurisdictions, designed to establish a connected preserve system that protects the County's sensitive species and habitats. Each of the 12 jurisdictions will have their own subarea plan.

2.0 Project Effects

2.1 Flora

Impacts to sensitive plant species are not expected to occur. Two sensitive plant species, singlewhorl burrobrush and San Diego sagewort, have a high potential to occur within the proposed project site; however, they were not observed during biological reconnaissance surveys. Impacts to spiny rush are not anticipated, as the individual plants observed are located outside the project footprint. These species are discussed in further detail below in Section 3.0.

2.2 Fauna

The initial grading activities associated with the proposed project will potentially result in impacts to common amphibian and reptile species. However, the impacts will disturb a relatively small amount of habitat and are expected to impact a small number of individuals. The proposed project is not expected to result in impacts to common bird or mammal species, as these species are highly capable of dispersing. Therefore, impacts to general wildlife are considered less than significant. Potential impacts to sensitive wildlife species are discussed in Section 3.0.

The proposed long-term use of the trail is not expected to increase risk for impacts to faunal species, as the proposed project continues the existing uses within the area. Pedestrian, cyclist, and equestrian traffic is not expected to increase, as no parking area expansions or new access points are proposed.

2.3 Vegetation Communities

A total of 1.023 acres of vegetation communities will be permanently impacted, and a total of 0.035 acre of vegetation communities will be temporarily impacted by the proposed project (Table 4; Figures 8a and 8b). Within the impact areas, five sensitive vegetation communities, including 0.282 acre of southern arroyo willow riparian forest (0.016 acre of which is canopy only), 0.048 acre of southern willow scrub, 0.004 acre of southern cottonwood-willow riparian forest, 0.011 acre of coastal brackish marsh, and 0.035 acre of disturbed Diegan coastal sage scrub, will be permanently impacted. Temporary impacts are proposed within one sensitive vegetation community, southern arroyo willow riparian forest, totaling 0.035 acre.

Of the above listed impacts the following impacts are proposed within the SWOMA: 0.045 acre of permanent impacts to southern arroyo willow riparian forest (0.008 acre of which are canopy only), 0.020 acre of permanent impacts to southern willow scrub, and 0.025 acre of temporary impacts to southern arroyo willow riparian forest. Refer to Table 4 for a detailed breakdown of impacts.

The proposed project's impacts will result from improvements to the existing dirt path. Outside the SWOMA, widening of the existing path to establish the proposed trail will consist of vegetation removal and grading to establish an eight-foot-wide trail bed with two feet of clearance on either side, resulting in 12-foot-wide permanent impacts along the length of the trail. Where the trail is within the SWOMA, the trail will be narrowed to a five-foot total width, reducing the permanent impacts to five feet in width along this length of the trail.

Improvements to the trail will include installation of trail markers and fencing, removal of an existing foot-bridge, and amendment of the existing trail tread where necessary (e.g., adding gravel to the tread where the existing dirt path is prone to frequent flooding). Trail markers and fencing will be placed along the edge of the proposed trail bed or within the two-foot clearance area along the trail, and will therefore not extend the impacts beyond those proposed for trail establishment. However, removal of the bridge will require a 30-foot-wide temporary work area for staging of equipment.

Where trail turnouts are proposed in areas that are largely dominated by non-native invasive plant species, such as pepper trees, Washington palm, or Canary Island date palm (*Phoenix canariensis*), the clearing of vegetation is not considered an impact (see Figures 8a and 8b), as removal of the invasive plant species is expected to benefit the

TABLE 4

HABITAT TYPES/VEGETATION COMMUNITIES AND IMPACTS WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA

Habitat Type/ Vegetation Community	Existing (acres)	Temporary Jurisdictional[1] Impacts (acres)		Permanent Jurisdictional[1] Impacts (acres)		Non-Jurisdictional[2] Permanent Impacts[3]	**Total**
		Outside SWOMA	Within SWOMA	Outside SWOMA	Within SWOMA		
Southern arroyo willow riparian forest	20.0	0.010	0.025	0.232	0.045	0.005	**0.317**
Southern cottonwood-willow riparian forest	0.3	–	–	0.004	–	–	**0.004**
Southern willow scrub	6.5	–	–	0.028	0.020	–	**0.048**
Coastal brackish marsh	0.3	–	–	0.011	–	–	**0.011**
Disturbed Diegan coastal sage scrub	0.2	–	–	–	–	0.035	**0.035**
Disturbed habitat	1.0	–	–	–	–	0.005	**0.005**
Non-native vegetation	2.0	–	–	–	–	0.076	**0.076**
Disturbed land	1.1	–	–	0.003	<0.001 (17 sq.ft.)	0.559	**0.562**
Urban/developed land	1.8	–	–	–	–	–	–
TOTAL	33.2	0.010	0.025	0.278	0.065	0.680	**1.058**

SWOMA = Sweetwater Off-site Mitigation Area

[1] Total acreage under the jurisdiction of California Department of Fish and Game and Regional Water Quality Control Board; includes U.S. Army Corps of Engineers' jurisdiction.

[2] Areas not covered by the MSCP.

[3] No temporary impacts to non-jurisdictional resources will occur.

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Survey Area
Parcels
Permanent Trail Impacts
Restoration Opportunity
Spiny Rush
(Juncus acutus ssp. *leopoldii)*

VEGETATION COMMUNITIES

Coastal Brackish Marsh
Disturbed Coastal Sage Scrub
Disturbed Habitat
Non-Native Vegetation
Southern Arroyo Willow Riparian Forest
Southern Willow Scrub
Existing Dirt Path
Urban/Developed
Existing Restoration Area

0 Feet 200

RECON

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FIGURE 8a

Impacts to Biological Resources and Potential Restoration Opportunities within the Sweetwater River Phase III Trail Survey Area

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Survey Area
Parcels
Restoration Opportunity
Sweetwater Off-site Mitigation Area

IMPACTS
Permanent Trail Impacts
Temporary Impacts
Neutral Impacts

VEGETATION COMMUNITIES
Disturbed Coastal Sage Scrub
Non-Native Vegetation
Southern Arroyo Willow Riparian Forest
Southern Cottonwood-Willow Riparian Forest
Southern Willow Scrub
Existing Dirt Path
Urban/Developed

0 Feet 200

RECON

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FIGURE 8b
Impacts to Biological Resources and Potential Restoration Opportunities within the Sweetwater River Phase III Trail Survey Area

existing native riparian habitat in the short- and long-term by opening up space within the canopy for native tree species and removing non-native seed sources. Therefore, these areas (totaling 0.020 acre outside SWOMA and 0.005 acre within SWOMA) are not included in the total vegetation impacts, and removal of this vegetation will not require mitigation.

2.4 Wetlands/Jurisdictional Waters

The proposed project would permanently impact 0.165 acre of ACOE jurisdictional resources, including 0.158 acre of wetlands and 0.007 acre of non-wetland waters. The proposed project would temporarily impact 0.030 acre of ACOE jurisdictional resources, including 0.022 acre of wetlands and 0.008 acre of non-wetland waters (Table 5). Impacts to ACOE jurisdictional resources are depicted in Figures 9a and 9b.

Permanent impacts to CDFG jurisdiction total 0.344 acre, including 0.337 acre of riparian habitat and 0.007 acre of streambed. Temporary impacts to CDFG jurisdiction total 0.035 acre, including 0.027 acre of riparian habitat and 0.008 acre of streambed (see Table 5). Impacts to CDFG jurisdictional resources are depicted in Figures 10a and 10b.

As the RWQCB takes jurisdiction over all waters of the state and all waters of the United States as mandated by both the federal CWA and the California Porter-Cologne Water Quality Control Act, permanent and temporary impacts to RWQCB jurisdiction are equal to those under CDFG jurisdiction.

As discussed in Section 2.3, where trail turnouts are proposed in areas that are largely dominated by non-native invasive plant species, the clearing of vegetation is not considered an impact (see Figures 9a and 9b), as removal of the invasive plant species is expected to benefit the existing native riparian habitat in the short- and long-term by opening up space within the canopy for native tree species and removing non-native seed sources. Therefore, these areas are not included in the total vegetation impacts, and removal of this vegetation will not require mitigation.

Impacts to jurisdictional resources in the survey area may require a 404 Nationwide Permit and would require a 1600 Streambed Alteration Agreement from CDFG and a 401 certification from the California RWQCB. In order to reduce the impacts to jurisdictional resources to a level of less than significant, authorized impacts to jurisdictional resources would require mitigation through habitat creation, enhancement, or preservation to achieve a no-net-loss of jurisdictional resources. Required mitigation measures are discussed in Section 5.4.

TABLE 5

JURISDICTIONAL RESOURCES IMPACTS FOR THE SWEETWATER RIVER PHASE III TRAIL IMPROVEMENT PROJECT

Jurisdictional Resources	Temporary Impacts (acres)		Permanent Impacts (acres)		**Total**
	Outside SWOMA	Within SWOMA	Outside SWOMA	Within SWOMA	
ACOE Resources					
Wetland	0.004	0.018	0.152	0.006	**0.180**
Non-wetland waters	0.005	0.003	0.006	<0.001 (34 sq.ft.)	**0.015**
Total ACOE Resource Impacts	*0.009*	*0.021*	*0.158*	*0.007*	***0.195***
CDFG/RWQCB Resources					
Riparian	0.005*	0.022*	0.272*	0.065*	**0.364***
Streambed	0.005*	0.003*	0.006*	<0.001 (34 sq.ft.)*	**0.015***
Total CDFG/RWQCB Resource Impacts	*0.010**	*0.025**	*0.278**	*0.066**	***0.379****

*Includes impacts to ACOE jurisdictional resources.

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Survey Area

Permanent Impacts

Test Pit

Culvert

JURSIDICTIONAL WATERS/ WETLANDS

ACOE Non-wetland Water

ACOE Wetland

RECON

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FIGURE 9a

Impacts to ACOE Jurisdictional Resources within the Sweetwater River Phase III Trail Survey Area

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Survey Area
Sweetwater Off-site Mitigation Area
Test Pit
Culvert

IMPACTS
Permanent Trail Impacts
Temporary Impacts
Neutral Impacts

JURSIDICTIONAL WATERSWETLANDS
ACOE Non-wetland Water
ACOE Wetland

0 Feet 200

RECON

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FIGURE 9b
Impacts to ACOE Jurisdictional Resources within the Sweetwater River Phase III Trail Survey Area

Image source: Copyright GlobeXplorer, All Rights Reserved (flown April 2008)

Survey Area
Permanent Impacts
Test Pit
Culvert

JURISDICTIONAL WATERS
CDFG Streambed
CDFG Riparian Habitat

RECON

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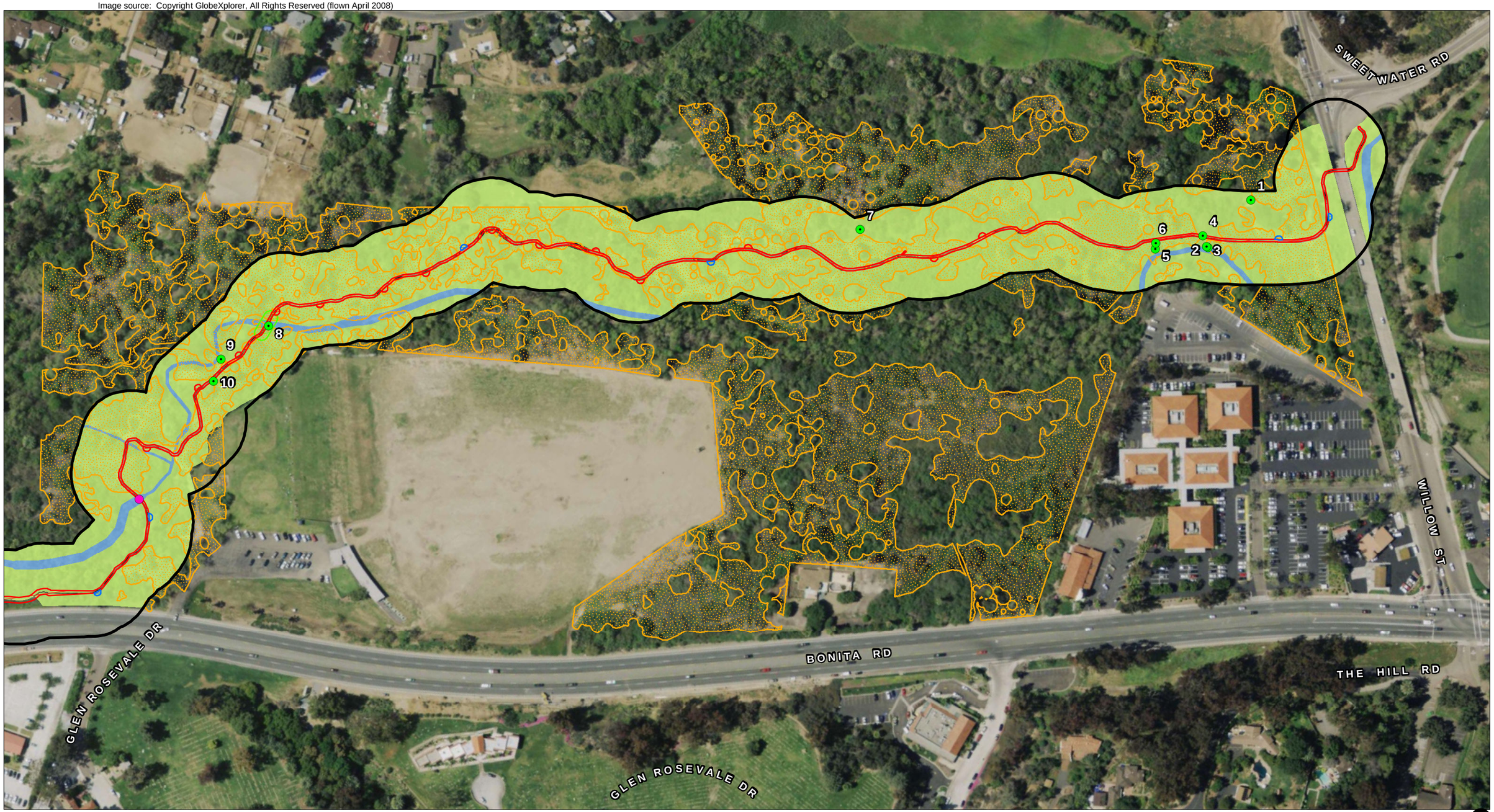
FIGURE 10a
Impacts to CDFG Jurisdictional Resources within the Sweetwater River Phase III Trail Survey Area

Image source: Copyright GlobeXplorer, All Rights Reserved (flown April 2008)



Survey Area
Sweetwater Off-site Mitigation Area
Test Pit
Culvert

IMPACTS
Permanent Trail Impacts
Temporary Impacts
Neutral Impacts

JURISDICTIONAL WATERS
CDFG Streambed
CDFG Riparian Habitat

0 Feet 200

RECON

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FIGURE 10b
Impacts to CDFG Jurisdictional Resources within the Sweetwater River Phase III Trail Survey Area

3.0 Special Status Species

Plant or wildlife species are considered sensitive if they are (1) on List A, B, C, or D of the County of San Diego Sensitive Plant List or in Group 1 or 2 of the County of San Diego Sensitive Animal List (County of San Diego 2008); (2) covered or listed as a narrow endemic under the MSCP (County of San Diego 1997); (3) listed by state or federal agencies as threatened or endangered or are proposed for listing; (4) on List 1B (considered endangered throughout its range) or List 2 (considered endangered in California but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (2001); or (5) considered rare, endangered, or threatened by the CNDDB (State of California 2008a-d) or local conservation organizations or specialists.

Raptors (birds of prey) and active raptor nests are protected by the California Fish and Game Code 3503.5, which states that it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized (State of California 1991).

3.1 Guidelines for the Determination of Significance

An adverse effect, either direct or through habitat modifications, on any sensitive species (as defined above in Section 3.0), is considered significant if any of the following conditions are met:

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

B. The project would impact the regional long-term survival of a County List A (rare, threatened, or endangered in California and elsewhere) or B (rare, threatened, or endangered in California but more common elsewhere) plant species, a County Group 1 animal species, or a species listed as a state Species of Special Concern.

C. The project would impact the regional long-term survival of a County List C (need more information to determine rarity status) or D (of limited distribution and uncommon, but not presently rare or endangered) plant species or a County Group 2 animal species.

D. The project may impact arroyo toad (*Bufo californicus*) aestivation or breeding habitat.

E. The project would impact golden eagle (*Aquila chrysaetos canadensis*) habitat.

F. The project would result in a loss of functional foraging habitat for raptors.

G. The project would increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.

H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.

I. The project would increase human access or predation or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive species.

J. The project would impact nesting success of sensitive animals through grading, clearing, fire fuel modification, and/or noise generating activities such as construction.

3.2 Analysis of Project Effects

The proposed project may result in impacts under the following guidelines for the following reasons:

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

No plant species listed as federally or state endangered or threatened were observed or a have a high potential to occur within the proposed project site.

One avian species, least Bell's vireo, listed as federally and state endangered, has a high potential to nest within the proposed project site; however, this species was not observed during biological reconnaissance surveys. Willow-dominated riparian habitat, which provides suitable nesting habitat for this species, is proposed for trimming and removal as part of the project. Therefore, there is *potential* for direct impacts to occur to nesting least Bell's vireo if grading or vegetation clearing takes place during the least Bell's vireo's nesting season of March 15 to September 15.

As the proposed trail is located within a Take Authorized Area (see Figure 4), take of MSCP covered species associated with the on-going management of San Diego County Park Lands and construction of facilities consistent with park

development plans (County of San Diego 1989) in existence at the time of adoption of the MSCP County of San Diego Subarea Plan (1997) would typically be authorized consistent with the Subarea Plan. However, as least Bell's vireo is a wetland species, take of this species is not covered within ACOE jurisdictional areas. Any impacts to this species would require ESA Section 7 consultation with the USFWS for take authorization as part of the CWA 404 process. Avoidance and minimization measures are discussed below in Section 3.4.A to ensure impacts to this species are avoided.

B. The project would impact the regional long-term survival of a County List A (rare, threatened, or endangered in California and elsewhere) or B (rare, threatened, or endangered in California but more common elsewhere) plant species, a County Group 1 animal species, or a species listed as a state Species of Special Concern.

No County List A or B plant species were observed or have a high potential to occur within the proposed project site.

Three County Group 1 animal species, Cooper's hawk, least Bell's vireo, and yellow-breasted chat, and one Species of Special Concern, yellow warbler, have a high potential to nest within the proposed project site; however, these species were not observed during biological reconnaissance surveys. Riparian habitat, which provides suitable nesting habitat for these species, is proposed for trimming and removal as part of the project. Therefore, there is *potential* for direct impacts to occur to nesting Cooper's hawk, least Bell's vireo, yellow-breasted chat, and yellow warbler if grading or vegetation clearing takes place during their respective nesting seasons, which occur between February 1 and September 15.

Potential impacts to least Bell's vireo are discussed above in Section 3.2.A.

As the majority of the proposed trail is located within a Take Authorized Area (see Figure 4), take of MSCP covered species, Cooper's hawk, associated with the on-going management of San Diego County Park Lands and construction of facilities consistent with park development plans (County of San Diego 1989) in existence at the time of adoption of the MSCP County of San Diego Subarea Plan (1997) would typically be authorized consistent with the Subarea Plan.

Avoidance, minimization, and mitigation measures are discussed below in Section 3.4.G/J to ensure take of Cooper's hawk is avoided and to reduce potential impacts to yellow-breasted chat and yellow warbler to a level of less than significant.

C. The project would impact the regional long-term survival of a County List C (need more information to determine rarity status) or D (of limited

distribution and uncommon, but not presently rare or endangered) plant species or a County Group 2 animal species.

One County List D plant species, spiny rush, was observed, and one County List D plant species, San Diego sagewort, has a high potential to occur within the proposed project site. As the proposed footprint of the trail avoids the observed population of spiny rush, no impacts are expected to occur to this species (see Figure 8a). There is potential for impacts to occur to San Diego sagewort if this species is present within the proposed project site; however, this species was not observed during biological reconnaissance surveys in August and September 2008.

Two County Group 2 avian species, western bluebird and yellow warbler, have a high potential to occur within the proposed project site; however these species were not observed during biological reconnaissance surveys. Direct impacts have the *potential* to occur if either species is present. Riparian habitat, which provides suitable nesting habitat for these species, is proposed for trimming and removal as part of the project. Therefore, there is potential for direct impacts to occur to nesting western bluebird and yellow warbler if grading or vegetation clearing takes place during their respective nesting seasons, which occur between March 15 and August 31.

As the majority of the proposed trail is located within a Take Authorized Area (see Figure 4), take of MSCP covered species, western bluebird, associated with the on-going management of San Diego County Park Lands and construction of facilities consistent with park development plans (County of San Diego 1989) in existence at the time of adoption of the MSCP County of San Diego Subarea Plan (1997) would typically be authorized consistent with the Subarea Plan. Adherence to the avoidance, minimization, and mitigation measures discussed in Sections 3.4.A and G/J will reduce potential impacts to western bluebird and yellow warbler to a level of less than significant.

D,E, and F. See discussion below.

G. The project would increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.

All project-related work will be conducted during daylight hours, and no lighting is proposed as part of the proposed trail improvements; therefore, no nighttime lighting will be introduced into the survey area. As suitable nesting habitat for tree-nesting raptors and least Bell's vireo is present within and adjacent to the proposed project site, project-related indirect noise impacts have the potential to occur to these species if initial grading and construction occur during their respective nesting seasons, which occur between February 1 and September 15.

Impacts to nesting raptors or least Bell's vireo would be considered significant if the impacts result in nest failure. Avoidance and mitigation measures are discussed in Sections 3.4.A and G/J.

J. The project would impact nesting success of sensitive animals through grading, clearing, fire fuel modification, and/or noise generating activities such as construction.

As suitable nesting habitat for various sensitive avian species (see 3.2.A, B, C, and G) is present within and adjacent to the proposed project site, project-related grading, clearing, and noise generating activities have the potential to impact the nesting success of these species if initial grading and construction occur during the avian nesting season between February 1 and September 15. In order to avoid direct or indirect impacts to nesting birds, construction activities shall occur outside the nesting season of February 1 through September 15. Impacts resulting in nesting failure of sensitive species would be considered significant. Avoidance and mitigation measures are discussed in Section 3.4.A and G/J.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

D. The project may impact arroyo toad (*Bufo californicus*) aestivation or breeding habitat.

The site contains no suitable habitat for the arroyo toad, as the riparian habitat along the river channels contains dense understory and canopy growth. In addition, populations occur above Sweetwater Reservoir but are separated from the site by the reservoir.

E. The project would impact golden eagle (*Aquila chrysaetos canadensis*) habitat.

No golden eagles are present on-site or known to occur within 4,000 feet of the survey area.

F. The project would result in a loss of functional foraging habitat for raptors.

As the acreage of native vegetation that will be permanently impacted by the proposed project is small and spread out along the proposed trail, the impacts to raptor foraging habitat will be minimal. In addition, above a twelve-foot height, canopies of trees that are adjacent to the proposed trail may remain as part of the proposed project or be allowed to re-establish following completion of the proposed project. In effect, long term impacts to raptor perch sites may be smaller than that represented by the proposed trail footprint in Figures 8a and 8b. Therefore, the proposed impacts within the project site are not expected to result

in a significant loss of functional raptor foraging habitat. In addition, mitigation for impacts to jurisdictional riparian habitat (see Section 5.4) would offset any impacts to raptor foraging habitat.

H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.

The section of the Sweetwater River corridor in which the proposed project is located has been identified as "one of the most environmentally sensitive areas of Sweetwater Regional Park" (County of San Diego 1989). However, the impacts to native vegetation are linear and small relative to the size of the river corridor in which the project is located, as the trail will be constructed along existing dirt paths, and the proposed project will not introduce any barriers to wildlife movement through the area. Therefore, the proposed project would not impact the viability of a core wildlife area that supports multiple wildlife species.

I. The project would increase human access or predation or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive species.

The project would not increase animal access to the area. Although the frequency of human visitation to the proposed project site may increase slightly as a result of the project, the ability for humans to access the site would not significantly change. As no new access points or parking areas would be created, the proposed project is not expected to adversely affect sensitive species due to an increase in human access to the area. In addition, it is County policy to require all dogs to be leashed at all times.

3.3 Cumulative Impact Analysis

Continued use and maintenance of this trail is consistent with the Sweetwater Regional Park Master Plan developed in 1989. Potential cumulative impacts were taken into consideration when the Subarea Plan was prepared and approved. As the vegetative impacts associated with trail improvements will be minimal, and potential impacts to sensitive species will be mitigated to a level of less than significance, the proposed project is not expected to significantly contribute to cumulative impacts in the vicinity.

3.4 Mitigation Measures and Design Considerations

A. Although not observed during biological reconnaissance surveys, the project area contains suitable habitat for the least Bell's vireo

To reduce potential direct and indirect impacts to this species, it is recommended that construction activities (e.g., clearing or grading) occurring within 300 feet of the riparian habitat (i.e., southern arroyo willow riparian forest, southern cottonwood-willow riparian forest, and southern willow scrub) be conducted outside the breeding season (March 15 - September 15). If construction must occur inside the breeding season, a qualified biologist shall conduct a pre-construction survey to determine if nesting least Bell's vireo or other nesting migratory birds are present.

If least Bell's vireo are nesting within the vegetation to be directly impacted, no grading or clearing of vegetation shall be conducted within 300 feet of the active nest until the young have fledged and are independent of the nest. If least Bell's vireo are nesting adjacent to (within 300 feet of) the habitat to be impacted, an acoustician shall measure ambient noise levels before construction begins or during a time when construction activities are not being conducted. During construction, the acoustician shall measure noise levels within 10 feet of the nest. Generally, noise levels at nests are required to be less than 60 decibels or the ambient noise level, whichever is greater. Temporary sound barriers may be required, or grading may be restricted in construction areas near the nest site to reduce noise levels. Temporary sound barriers must be placed within the project footprint and not in the habitat. No restrictions are required for least Bell's vireo outside their nesting season.

B. Mitigation measures for potential impacts to least Bell's vireo are discussed above in Section 3.4.A. The measures discussed under Section 3.4.A also serve to reduce the potential impacts to the yellow warbler and yellow-breasted chat to a level of less than significant, as the breeding season for each of these species falls within that of least Bell's vireo. The yellow warbler breeding season occurs between the approximate dates of April 15 and August 15, and the yellow-breasted chat breeding season occurs between May 1 and August 15 (Unitt 2004). Pre-construction nesting surveys will identify any active migratory bird nests. Direct impacts to any active migratory bird nest would be avoided.

Avoidance and mitigation measures for Cooper's hawk are discussed below in Section 3.4.G/J.

C. The measures discussed under Section 3.4.A serve to reduce the potential impacts to the western bluebird and yellow warbler to a level of less than significant, as the breeding season for each of these species falls within that of least Bell's vireo. The western bluebird breeding season occurs between the approximate dates of March 15 and August 31, and the yellow warbler breeding season occurs between April 15 and August 15 (Unitt 2004). Pre-construction nesting surveys will identify any active migratory bird nests. Direct impacts to any active migratory bird nest would be avoided.

G/J. In order to prevent direct and indirect noise impacts to tree nesting raptors such as Cooper's hawk and red-shouldered hawk, initial grading and construction within the proposed project site should take place outside the raptors' breeding season of February 1 to July 15. If construction occurs between February 1 and July 15, a qualified biologist shall conduct a pre-construction clearance survey for nesting raptors in suitable nesting habitat (e.g., eucalyptus, palm, or oak trees) that occurs within 500 feet of the survey area. If any active raptor nest is located, the nest area will be flagged, and a 500-foot buffer zone delineated, flagged, or otherwise marked. No work activity may occur within this buffer area until a qualified biologist determines the fledglings are independent of the nest.

Avoidance and mitigation measures for least Bell's vireo, yellow warbler, yellow-breasted chat, and western bluebird are discussed above in Sections 3.4.A-C.

3.5 Conclusions

The proposed avoidance, minimization, and mitigation measures described above in Section 3.4 will reduce the potential impacts to sensitive species to a level of less than significant.

4.0 Riparian Habitat or Sensitive Natural Community

For purposes of this report, sensitive vegetation communities (i.e., natural communities) are those identified by the CDFG (State of California 2008e; Holland 1986) or the County of San Diego (2008). Reasons for the sensitive status of vegetation communities include restricted range, cumulative losses throughout the region, and a high number of endemic sensitive plant and wildlife species that occur in the vegetation communities. These communities are considered sensitive whether or not they have been disturbed. Following CEQA Guidelines, riparian and sensitive habitats are discussed in a separate section from wetlands.

4.1 Guidelines for the Determination of Significance

An adverse effect on any riparian habitat or other sensitive natural community (as defined above in Section 4.0) is considered significant if any of the following conditions are met:

A. Project-related construction, grading, clearing, or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

D. The project would increase human access or competition from domestic animal, pest, or exotic species to levels proven to adversely affect sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

4.2 Analysis of Project Effects

The proposed project may result in impacts under the following guidelines for the following reasons:

A. Project-related construction, grading, clearing, or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.

Within the impact areas, five sensitive vegetation communities, including 0.282 acre of southern arroyo willow riparian forest (0.016 acre of which is canopy only), 0.004 acre of southern cottonwood-willow riparian forest, 0.048 acre of southern willow scrub, 0.011 acre of coastal brackish marsh, and 0.035 acre of

disturbed Diegan coastal sage scrub, will be permanently impacted (see Table 4). Temporary impacts will result to one sensitive vegetation community, southern arroyo willow riparian forest, totaling 0.035 acre (see Table 4).

Of the above-listed impacts, the following impacts are proposed within the SWOMA: 0.045 acre of permanent impacts to southern arroyo willow riparian forest, 0.020 acre of permanent impacts to southern willow scrub, and 0.025 acre of temporary impacts to southern arroyo willow riparian forest (see Table 4).

As the proposed project site is located within a Take Authorized Area of the Sweetwater Regional Park, South County Segment of the MSCP Subarea Plan, and the proposed project is consistent with park development plans that existed at the time of adoption of the MSCP County of San Diego (County of San Diego 1989 and 1997), only impacts to sensitive vegetation communities that are considered jurisdictional or that fall within the SWOMA will require mitigation (County of San Diego 1997; see Section 5.0).

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

As discussed in Section 4.2.A above, the proposed project is expected to temporarily and permanently impact southern arroyo willow riparian forest, southern willow scrub, southern cottonwood-willow riparian forest, and coastal brackish marsh. Impacts to jurisdictional resources, which include these habitats, will require mitigation (see Section 5.2.A).

The proposed project would not result in impacts under the following guidelines for the following reasons:

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

The proposed project would not significantly draw down the groundwater table, as the use of groundwater is not proposed for this project.

D. The project would increase human access or competition from domestic animal, pest, or exotic species to levels proven to adversely affect sensitive habitats.

The project would not increase animal access to the area. Although the frequency of human visitation to the proposed project site may increase as a result of the project, the ability for humans to access the site would not significantly change. The proposed project is not expected to adversely affect sensitive habitat due to an increase in human access to the area, as no new access points or parking areas would be created as part of the proposed project. In addition, it is County policy to require all dogs be leashed at all times. Furthermore, directional signage will be utilized to encourage users to stay on the trail and avoid sensitive biological habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

The existing dirt path intersects wetland habitat and does not provide a wetland buffer. As the proposed project follows the alignment of the existing path and continues the existing uses of this path, the project is not expected to impact the functions and values of adjacent wetlands beyond those impacts associated with existing uses. In addition, proposed fencing and trail markers will help to decrease potential impacts to adjacent wetland habitat by directing trail users to stay on the designated path. Direct impacts to wetland habitat associated with widening of the existing path are discussed in Section 5.2.

4.3 Cumulative Impact Analysis

The proposed project's potential impacts to sensitive habitats, except the wetland/riparian habitats requiring mitigation as jurisdictional resources and the habitats located within the SWOMA, do not require mitigation as discussed in Section 4.2.A., as they have already been accounted for in the MSCP and park development plans. The proposed mitigation measures for impacts to jurisdictional habitat and the SWOMA is described below in Section 4.4 and will reduce impacts to sensitive habitats to a level of less than significant. Therefore, when considered in conjunction with past and present projects located in the vicinity of the proposed project site, the proposed project would not contribute to a cumulatively considerable impact.

4.4 Mitigation Measures and Design Considerations

A/B. As the proposed project site is located within a Take Authorized Area, and the proposed project is consistent with park development plans that existed at the time of adoption of the MSCP County of San Diego Subarea Plan (County of San Diego 1989 and 1997), only temporary and permanent impacts to sensitive vegetation communities that are considered jurisdictional resources or that fall within the SWOMA will require mitigation (County of San Diego 1997; see Section 5.0).

Outside the SWOMA, the expected mitigation ratio for impacts to non-wetland waters/streambed, for permanent impacts to wetlands/riparian habitat, and for temporary impacts to wetlands/riparian habitat is 1:1 (Table 6). Within the SWOMA, the expected mitigation ratio for permanent impacts to non-wetland waters/streambed and wetlands/riparian increases to 2:1 (Table 7). Mitigation for impacts to non-wetland waters/streambed is included under southern arroyo willow riparian forest and disturbed land in Tables 6 and 7. Mitigation for impacts to wetlands/riparian habitat is included under coastal brackish marsh, southern arroyo willow riparian forest, southern cottonwood-willow riparian forest, and southern willow scrub in Tables 6 and 7. Therefore, 0.444 acre of mitigation may be required through on-site habitat creation, enhancement, or restoration or the purchase of off-site mitigation credits. See Section 5.0 for a detailed discussion of impacts to jurisdictional resources and the associated required mitigation.

TABLE 6
MITIGATION REQUIREMENTS FOR PERMANENT IMPACTS OUTSIDE SWOMA AND ALL TEMPORARY IMPACTS

Vegetation Type	Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Southern arroyo willow riparian forest	0.267	1:1	0.267
Southern cottonwood-willow riparian forest	0.004	1:1	0.004
Southern willow scrub	0.028	1:1	0.028
Coastal brackish marsh	0.011	1:1	0.011
Disturbed land*	0.003	1:1	0.003
Total	**0.313**	–	**0.313**

* Includes ACOE jurisdictional waters

TABLE 7
MITIGATION REQUIREMENTS FOR PERMANENT IMPACTS INSIDE SWOMA

Vegetation Type	Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Southern arroyo willow riparian forest	0.045	2:1	0.090
Southern cottonwood-willow riparian forest	–	2:1	–
Southern willow scrub	0.020	2:1	0.040
Coastal brackish marsh	–	2:1	–
Disturbed land*	<0.001 (17 sq.ft.)	2:1	<0.001 (34 sq.ft.)
Total	**0.066**	–	**0.131**

* Includes ACOE jurisdictional waters

4.5 Conclusions

The proposed mitigation described above in Section 4.4 would reduce impacts to sensitive habitat to a level of less than significant.

5.0 Jurisdictional Wetlands and Waterways

All wetland areas, wetland buffer areas, and non-wetland waters of the U.S. are considered sensitive. Wetlands and non-wetland waters are under the jurisdiction of the ACOE. Streambeds and associated vegetation are under the jurisdiction of the CDFG. Waters of the state and waters of the U.S. are under the jurisdiction of the RWQCB.

5.1 Guidelines for the Determination of Significance

The proposed project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, and so on) through direct removal, filling, hydrological interruption or other means if any of the following conditions are met:

A. Any of the following will occur to or within jurisdictional wetlands, waters, and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego

Resource Protection Ordinance (RPO): removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

B. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

C. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

5.2 Analysis of Project Effects

The proposed project may result in impacts under the following guidelines for the following reasons:

A. Any of the following will occur to or within jurisdictional wetlands, waters, and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego RPO: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

In order to reduce the impacts to ACOE and CDFG jurisdictional resources, the proposed project has be designed to avoid and minimize impacts to jurisdictional waters to the maximum extent practicable. The overall trail width has been narrowed from the typical 14 feet to 12 feet, and within the SWOMA has been narrowed to five feet. The proposed project would result in permanent and temporary impacts to ACOE jurisdictional wetlands, ACOE non-wetland waters, CDFG riparian habitat, and CDFG riparian habitat (see Table 5). The following activities would likely occur to or within jurisdictional waters as defined by ACOE and CDFG: removal of vegetation, grading, diversion of water flow, placement of fill, or temporary siltation. These impacts would be considered significant.

- The proposed project would result in permanent impacts to 0.165 acre of ACOE jurisdictional resources, including 0.158 acre of wetlands and 0.007 acre of non-wetland waters. The project would result in temporary impacts to 0.030 acre of ACOE jurisdictional resources, including 0.022

acre of wetlands and 0.008 acre of non-wetland waters (see Table 5). The total impacts to ACOE jurisdictional resources are equal to 1,840 linear feet. Impacts to ACOE jurisdictional resources are depicted in Figures 9a and 9b.

- An application for a Section 401 Water Quality Certificate from RWQCB would be required. Mitigation would be required for all impacts to ACOE jurisdictional resources. The proposed project would result in permanent impacts to a total of 0.344 acre of CDFG jurisdictional resources, including 0.337 acre of riparian habitat and 0.007 acre of streambed, and temporary impacts to a total of 0.035 acre of CDFG jurisdictional resources, including 0.027 acre of riparian habitat and 0.008 acre of streambed (see Table 5). Impacts to CDFG jurisdictional resources are depicted in Figures 10a and 10b. An application for a 1600 Streambed Alteration Agreement with CDFG would be required Mitigation would be required for all impacts to CDFG jurisdictional resources.

The proposed project would not result in impacts under the following guidelines for the following reasons:

B. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

The proposed project would not draw down the groundwater table as use of groundwater is not proposed for this project.

C. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

The existing dirt path intersects wetland habitat and does not provide a wetland buffer. The proposed project follows the alignment of the existing dirt path and continues the existing uses of this path. Therefore, the project is not expected to impact the functions and values of adjacent wetlands beyond those impacts associated with existing uses. In addition, proposed fencing and trail markers will help to decrease potential impacts to adjacent wetland habitat by directing trail users to stay on the designated path. Direct impacts to wetland habitat associated with widening of the dirt path are discussed in Section 5.2.A.

5.3 Cumulative Impact Analysis

The proposed project's impacts to potential jurisdictional wetlands and waterways will be avoided or minimized through specific design considerations or mitigated to a level of

less than significant. Therefore, when considered in conjunction with past and present projects located in the vicinity of the proposed project site, the proposed project would not contribute to a cumulatively considerable impact.

5.4 Mitigation Measures and Design Considerations

A. Authorized impacts to jurisdictional resources would require mitigation in the form of on-site habitat creation, enhancement, or restoration or the purchase of off-site mitigation credits to achieve a no-net-loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies. Outside the SWOMA, the expected mitigation ratio for impacts to non-wetland waters/streambed, for permanent impacts to wetlands/riparian habitat, and for temporary impacts to wetlands/riparian habitat is 1:1. Within the SWOMA, the expected mitigation ratio for permanent impacts to non-wetland waters/streambed and wetlands/riparian increases to 2:1. Mitigation for impacts to non-wetland waters/streambed is included under southern arroyo willow riparian forest and disturbed land in Tables 6 and 7. Mitigation for impacts to wetlands/riparian habitat is included under coastal brackish marsh, southern arroyo willow riparian forest, southern cottonwood-willow riparian forest, and southern willow scrub in Tables 6 and 7. Therefore, 0.444 acre of mitigation may be required through on-site habitat creation, enhancement, or restoration or the purchase of off-site mitigation credits.

   On-site mitigation will be proposed through closing and revegetating of existing dirt paths along the section of the Sweetwater river corridor that contains the proposed trail. Mitigation for impacts within the mitigation bank will occur within the mitigation bank. Mitigation for impacts outside the mitigation bank will either be mitigated within or outside the mitigation bank.

   Any on-site creation or enhancement would require the preparation of a revegetation plan. The revegetation plan would require approval from the County of San Diego and the resource agencies. In addition to the approximate 7,745 linear feet of existing informal dirt paths that exist adjacent to the proposed trail, approximately 0.21 acre of land has been identified within the survey area as potential restoration opportunity due to the prevalence of non-native or weedy species (RECON 2009; see Figures 8a and 8b). These areas provide potential locations for on-site creation or enhancement of wetlands/riparian habitat.

5.5 Conclusions

The proposed project design specifications and mitigation described above in Section 5.4 would reduce impacts to jurisdictional waters to a level of less than significant.

6.0 Wildlife Movement and Nursery Sites

Wildlife movement corridors are considered sensitive by the County of San Diego and resource and conservation agencies. Regional linkages have been identified on the MSCP Subarea Plan maps.

6.1 Guidelines for the Determination of Significance

Project-related interference with the movement of any native resident, migratory fish, or wildlife species, with established native resident or migratory wildlife corridors, or with the use of native wildlife nursery sites would be considered significant if any of the following conditions are met:

A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkage.

6.2 Analysis of Project Effects

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

The proposed project would not interfere with wildlife's accessibility to resources. Fencing will only be used where necessary along the trail to ensure users remain on the trail. In addition, where the fencing is used, it will be constructed to allow for wildlife movement through the area.

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

Although the proposed project site functions as part of a wildlife corridor along the Sweetwater River, the proposed project would not block or substantially interfere with the existing corridor. The proposed trail will follow the general alignment of the existing dirt path, and lodge pole fencing placed along portions of the trail will allow for wildlife movement. Although the trail will be widened in some areas, the trail meanders parallel to the river and would not completely intersect the corridor.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns.

The project would not create artificial wildlife corridors.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

All project-related activities will take place during daylight hours; therefore, no nighttime lighting will be used. As the existing use of the dirt path will continue under the proposed project, noise levels are not expected to substantially increase or affect the behavior of animals adjacent to the proposed trail.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow

corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

The proposed project would not affect the width of the existing wildlife corridor or linkage, nor would it remove a substantial amount of vegetative cover. The proposed trail, with a maximum width of 12 feet, would be narrow relative to the width of the corridor, which at its narrowest point is approximately 300 feet wide. In addition, tree canopies above a 12-foot height would be allowed to grow, resulting in an effective trail width of less than 12 feet along much of the trail. It has previously been determined that the existing passive use of the dirt path is a compatible use within the Sweetwater Regional Park (County of San Diego 1989 and 1997). No barriers to wildlife movement are proposed as part of the project.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkage.

The proposed project does not include visual barriers and would, therefore, maintain adequate visual continuity (i.e., long lines-of-sight) within the wildlife corridor.

6.3 Cumulative Impact Analysis

The proposed project would not result in impacts to wildlife movement corridors or nursery sites and, therefore, would not contribute to cumulative impacts of past or current cumulative projects.

6.4 Mitigation Measures and Design Considerations

The proposed project would not result in impacts to wildlife movement corridors or nursery sites. Therefore, no mitigation will be required.

6.5 Conclusions

The proposed project will not result in impacts to wildlife movement corridors, as the proposed project design would not interfere with wildlife's accessibility to resources; would not block, substantially interfere, or affect the width of with the existing corridor; and does not include visual barriers. The proposed project will not result in impacts to

nursery sites, as none have been identified within or adjacent to the proposed project site.

7.0 Local Policies, Ordinances, and Adopted Plans

7.1 Guidelines for the Determination of Significance

If this project conflicts with any local policies or ordinances protecting biological resources or with the provisions of an adopted habitat conservation plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan, any of the following conditions would be considered significant:

A. For lands outside the MSCP, the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California CSS NCCP Process Guidelines.

B. The project would preclude or prevent the preparation of the subregional NCCP Process. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

C. The project will impact any amount of sensitive habitat lands as outlined in the RPO.

D. The project would not minimize and/or mitigate CSS habitat loss in accordance with Section 4.3 of the NCCP Process Guidelines.

E. The project does not conform to the goals and requirements as outlined in any applicable HCP, habitat management plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.

F. For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas (BRCAs) as defined in the Biological Mitigation Ordinance (BMO).

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California CSS NCCP Process Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

J. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

K. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

7.2 Analysis of Project Effects

The proposed project may result in impacts under the following guidelines for the following reasons:

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

One narrow endemic avian species, least Bell's vireo, has a high potential to nest within the proposed project site. Willow-dominated riparian habitat, which provides suitable nesting habitat for this species, is proposed for trimming and removal as part of the project. Therefore, there is potential for direct impacts to occur to nesting least Bell's vireo if grading or vegetation clearing takes place during the least Bell's vireo's nesting season of March 15 to September 15. Avoidance and minimization measures are discussed in Sections 3.4.A and G/J to ensure minimal take of this species.

J. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

The project may result in impacts to migratory birds or destruction of active migratory bird nests or eggs during initial grading and vegetation removal. Mitigation measures discussed in Sections 3.4.A and G/J will ensure minimal take of these species.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

A. For lands outside the MSCP, the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California CSS NCCP Process Guidelines.

The proposed project is located within the MSCP County of San Diego Subarea Plan, and thus, this condition does not apply.

B. The project would preclude or prevent the preparation of the subregional NCCP Process. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

The proposed project site is located within the boundaries of the MSCP, County of San Diego Subarea Plan (1997). As this Plan has been completed, the project would not preclude or prevent the preparation of the subregional NCCP Process.

C. The project will impact any amount of sensitive habitat lands as outlined in the RPO.

The proposed project is not subject to the County's RPO. Therefore, this guideline is not applicable.

D. The project would not minimize and/or mitigate CSS habitat loss in accordance with Section 4.3 of the NCCP Process Guidelines.

The proposed permanent impacts to 0.035 acre of disturbed coastal sage scrub do not require mitigation, as the proposed project site is located within a Take Authorized Area of the Sweetwater Regional Park, South County Segment of the MSCP Subarea Plan. The proposed project is consistent with park development plans that existed at the time of adoption of the MSCP County of San Diego (County of San Diego 1989 and 1997), and impacts to sensitive vegetation communities will require no further mitigation than those required for the plans (County of San Diego 1997).

E. The project does not conform to the goals and requirements as outlined in any applicable HCP, habitat management plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.

The proposed project does not conflict with any known regional planning efforts.

F. For lands within the MSCP, the project would not minimize impacts to BRCAs as defined in the BMO.

The proposed project is not subject to the BMO, as it falls under the public project exemption. However, the project is consistent with the provisions of the BMO.

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California CSS NCCP Process Guidelines.

The project does not preclude connectivity between areas of high habitat values, as defined by the Southern California CSS NCCP Process Guidelines. The proposed project involves minimal clearing along an existing dirt path, and therefore does not introduce significant barriers within the existing area of high habitat value.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.

Although the proposed project site functions as part of a wildlife corridor along the Sweetwater River, the proposed project would not block or substantially interfere with the existing corridor. The proposed trail will follow the general alignment of the existing dirt path, and fencing along portions of the trail will allow for wildlife movement. Although the trail will be widened in some areas, the trail meanders parallel to the river and would not completely intersect the corridor.

K. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

No eagles are expected to occur within or adjacent to the survey area.

7.3 Cumulative Impact Analysis

The proposed project's potential impacts will be avoided through specific design considerations or mitigated to a level of less than significant. Therefore, when considered in conjunction with past and present projects located in the vicinity of the proposed project site, the proposed project would not contribute to a cumulatively considerable impact.

7.4 Mitigation Measures and Design Considerations

C. As discussed in Section 4.2.A, the proposed project site is located within a Take Authorized Area of the Sweetwater Regional Park, South County Segment of the MSCP Subarea Plan. As the proposed project is consistent with park development plans that existed at the time of adoption of the MSCP County of San Diego (County of San Diego 1989 and 1997), only impacts to sensitive vegetation communities that are considered jurisdictional resources or that fall

within the SWOMA will require mitigation (County of San Diego 1997). Mitigation for impacts to sensitive vegetation communities is discussed in Section 5.4, and reduces the level of impact to less than significant.

I. See Section 3.4.A for a discussion of required mitigation for impacts to least Bell's vireo.

J. In order to prevent direct impacts to nesting migratory birds, initial grading and construction within the proposed project site should take place outside the avian breeding season of February 1 to September 15. If construction occurs between February 1 and September 15, a qualified biologist shall conduct a pre-construction clearance survey for nesting birds within the proposed project site. If any active nest is located, the nest area will be flagged and avoided. No work activity may occur within the immediate vicinity of the nest until a qualified biologist determines the fledglings are independent of the nest. These measures and the detailed mitigation discussed in Sections 3.4.A and 3.4.G/J. would reduce impacts to a level of less than significant.

7.5 Conclusions

The proposed mitigation for impacts to jurisdictional resources, least Bell's vireo, and other migratory birds, discussed above and in Sections 3.4 and 5.4 would reduce impacts to a level of less than significant.

8.0 Summary of Project Impacts and Mitigation

As part of a planned trail system under the County Trails Program, the proposed project is a multi-use trail (pedestrian, equestrian, bicycle) approximately one mile in length that will complete a link in a trail system that will eventually extend east from Interstate 805 to a loop trail around the Sweetwater Reservoir.

Five sensitive avian species are known or have a high potential to occur in the project vicinity including: federally endangered least Bell's vireo; CDFG Species of Special Concern yellow breasted chat, yellow warbler, and Cooper's hawk; and western bluebird, an MSCP covered species. In order to prevent direct impacts to these and other nesting migratory birds, initial grading and construction within the proposed project site should take place outside the avian breeding season of February 1 to September 15. If construction occurs between February 1 and September 15, a qualified biologist shall conduct a pre-construction clearance survey for nesting birds within the proposed project site. If any active nest is located, the nest area will be flagged and avoided. No

work activity may occur within the immediate vicinity of the nest until a qualified biologist determines the fledglings are independent of the nest. These measures and the detailed mitigation discussed in Sections 3.4.A and 3.4.G/J would reduce impacts to a level of less than significant.

A total of 1.023 acres of vegetation communities will be permanently impacted, and a total of 0.035 acre of vegetation communities will be temporarily impacted by the proposed project. Within the impact areas, five sensitive vegetation communities, including 0.282 acre of southern arroyo willow riparian forest (0.016 acre of which is canopy only), 0.048 acre of southern willow scrub, 0.004 acre of southern cottonwood-willow riparian forest, 0.011 acre of coastal brackish marsh, and 0.035 acre of disturbed Diegan coastal sage scrub, will be permanently impacted. Temporary impacts are proposed within one sensitive vegetation community, southern arroyo willow riparian forest, totaling 0.035 acre.

Of the above-listed impacts, the following impacts are proposed within the SWOMA: 0.045 acre of permanent impacts to southern arroyo willow riparian forest (0.008 acre of which is canopy only), 0.020 acre of permanent impacts to southern willow scrub, and 0.025 acre of temporary impacts to southern arroyo willow riparian forest.

The proposed project would result in permanent impacts to 0.344 acre of CDFG jurisdictional resources, which includes 0.165 acre of ACOE jurisdictional resources. The proposed project would also result in temporary impacts to 0.035 acre of CDFG jurisdictional resources, which includes 0.030 acre of ACOE jurisdictional resources. Outside the SWOMA, the expected mitigation ratio for impacts to non-wetland waters/streambed, for permanent impacts to wetlands/riparian habitat, and for temporary impacts to wetlands/riparian habitat is 1:1. Within the SWOMA, the expected mitigation ratio for permanent impacts to non-wetland waters/streambed and wetlands/riparian increases to 2:1. Therefore, 0.444 acre of mitigation may be required through on-site habitat creation, enhancement, or restoration or the purchase of off-site mitigation credits.

Although the proposed project is located within a wildlife movement corridor, the project will not result in significant impacts to wildlife movement corridors or nursery sites. The proposed project would not affect the width of the existing wildlife corridor or linkage, nor would it remove a substantial amount of vegetative cover. No barriers to wildlife movement are proposed as part of the project. No mitigation would be required.

Adherence to the recommended mitigation measures discussed in Sections 3.0 through 7.0 would ensure the proposed project would not significantly conflict with any local policies or ordinances protecting biological resources or with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.

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10.0 List of Preparers and Persons and Organizations Contacted

RECON Environmental, Inc.

Brenna Ogg, Biologist

Debra Kinsinger, Senior Biologist

Jennifer MacAller, Associate Biologist

Cheri Bouchér, Senior Biologist

Frank McDermott, GIS Coordinator

Wendy Loeffler, County CEQA Consultant

Robert MacAller, Principal

Gerry Scheid, Senior Wetland Specialist, County CEQA Consultant

Steven Gaughran, Production Specialist

Paul Fromer, Principal

Jillian Bates, Biologist

County of San Diego

Esther Daigneault, Environmental Planning Manager

Lorrie Bradley, Environmental Planner/Biologist

ATTACHMENTS

ATTACHMENT 1

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA

Scientific Name	Common Name	Habitat	Origin
	GYMNOSPERMS		
PINACEAE	**PINE FAMILY**		
Pinus sp.	pine	NNV, SWS	I
	ANGIOSPERMS: DICOTS		
AIZOACEAE	**FIG-MARIGOLD FAMILY**		
Carpobrotus edulis (L.) Bolus.	hottentot fig	NNV, SWRF	I
AMARANTHACEAE	**AMARANTH FAMILY**		
Atriplex triangularis Willd.	spearscale	SCRF	N
Chenopodium murale L.	nettle-leaved goosefoot	SCRF	I
Dysphania [=*Chenopodium*] *ambrosioides* (L.) Mosyakin & Clemants	Mexican tea	SWRF	I
Salicornia virginica L.	pickleweed	CBM	N
Salsola tragus L.	Russian thistle, tumbleweed	DCSS, DH, SWRF	I
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**		
Rhus integrifolia (Nutt.) Brewer & Watson	lemonadeberry	DCSS, SWRF, SWS	N
Schinus molle L.	Peruvian pepper tree	CBM, NNV	I
Schinus terebinthifolius Raddi	Brazilian pepper tree	NNV, SWRF	I
APIACEAE (UMBELLIFERAE)	**CARROT FAMILY**		
Apium graveolens L.	celery	SWRF	I
Foeniculum vulgare Mill.	fennel	NNV, SWRF, SWS	I
ASTERACEAE	**SUNFLOWER FAMILY**		
Ambrosia psilostachya DC.	western ragweed	NNV, SCRF	N
Artemisia douglasiana Besser	mugwort	SWRF	N
Aster subulatus Michaux var. *ligulatus* Shinners [=*Symphyotrichum divaricatum*]	slim aster	DH, NNV, SWS	N
Baccharis pilularis DC.	coyote bush	DCSS, SWRF, SWS	N
Baccharis salicifolia (Ruiz Lopez & Pavón) Pers.	mule fat, seep-willow	CBM, SWS, SCRF	N
Baccharis sarothroides A. Gray	broom baccharis	SWRF	N
Centaurea melitensis L.	tocolote, star-thistle	SWRF	I
Cirsium occidentale (Nutt.) Jepson var. *californicum* (A. Gray) Keil & C. Turner	California thistle	SWRF	N
Cirsium vulgare (Savi) Ten.	bull thistle	SWRF	I

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
Conyza canadensis (L.) Cronq.	horseweed	NNV, SCRF	N
Dimorphotheca pluvialis Moench	African daisy	SWRF	I
Euthamia occidentalis Nutt.	western goldenrod	CBM, SWRF	N
Glebionis coronaria (L.) Spach [=*Chrysanthemum coronarium*]	garland, crown daisy	SWRF	I
Heterotheca grandiflora Nutt.	telegraph weed	NNV, SWRF	N
Isocoma menziesii (Hook. & Arn.) G. Nesom	coast goldenbush	CBM, DCSS, NNV, SWS	N
Lactuca serriola L.	prickly lettuce	CBM, SWS, SWRF	I
Picris echioides L.	bristly ox-tongue	SCRF	I
Pluchea odorata (L.) Cass.	salt marsh fleabane	SWRF	N
Xanthium strumarium L.	cocklebur	SWS	N
BORAGINACEAE	**BORAGE FAMILY**		
Heliotropium curassavicum L.	chinese pusley	DCSS, SWS, SWRF	N
BRASSICACEAE (CRUCIFERAE)	**MUSTARD FAMILY**		
Hirschfeldia incana (L.) Lagr.-Fossat	short-pod mustard	DCSS, DH, SWRF	I
Lepidium nitidum Torrey & A. Gray var. *nitidum*	shining peppergrass	SWRF	N
Raphanus sativus L.	radish	DCSS, SCRF	I
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**		
Lonicera subspicata Hook. & Arn. var. *denudata* Rehd.	wild honeysuckle	SWRF	N
EUPHORBIACEAE	**SPURGE FAMILY**		
Chamaesyce sp.	prostrate spurge	SCRF	N
Croton [=*Eremocarpus*] *setigerus* Hook.	dove weed	SWS	N
Ricinus communis L.	castor bean	SCRF, SWRF	I
FABACEAE (LEGUMINOSAE)	**LEGUME FAMILY**		
Lotus strigosus (Nutt.) E. Greene	Bishop's lotus	SWRF, SWS	N
Melilotus albus Medikus	white sweet clover	SWRF	I
FAGACEAE	**OAK FAMILY**		
Quercus agrifolia Née	coast live oak	SWRF, SWS	N
FRANKENIACEAE	**FRANKENIA FAMILY**		
Frankenia salina (Molina) I. M. Johnston	alkali heath	CBM	N
GERANIACEAE	**GERANIUM FAMILY**		
Erodium sp.	filaree, storksbill	DH	I

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
LAMIACEAE	**MINT FAMILY**		
Marrubium vulgare L.	horehound	SWRF	I
MORACEAE	**MULBERRY FAMILY**		
Ficus carica L.	edible fig	SWRF	I
Morus sp.	mulberry	SWRF	I
MYOPORACEAE	**MYOPORUM FAMILY**		
Myoporum laetum Forst.	myoporum	SWRF	I
MYRTACEAE	**MYRTLE FAMILY**		
Callistemon sp.	bottlebrush	SWRF	I
Eucalyptus spp.	eucalyptus	NNV, SCRF	I
MYRSINACEAE			
Anagallis arvensis L.	scarlet pimpernel	SWS	I
ONAGRACEAE	**EVENING-PRIMROSE FAMILY**		
Camissonia bistorta (Torrey & A. Gray) Raven	California sun cup	DH, SWS	N
Epilobium sp.	willow-herb	SWS	N
Oenothera elata Kunth ssp. *hirsutissima* (S. Watson) W. Dietr.	tall yellow evening primrose	SWS, SWRF	N
PITTOSPORACEAE	**PITTOSPORUM FAMILY**		
Pittosporum sp.	pittosporum	SCRF	I
PLANTAGINACEAE	**PLANTAIN FAMILY**		
Plantago lanceolata L.	English plantain	SWS	I
PLATANACEAE	**PLANE TREE OR SYCAMORE FAMILY**		
Platanus racemosa Nutt.	western sycamore	SWRF	N
POLYGONACEAE	**BUCKWHEAT FAMILY**		
Eriogonum fasciculatum Benth. var. *fasciculatum*	California buckwheat	SWRF	N
Rumex conglomeratus Murray	Whorled dock	SWS	I
Rumex crispus L.	curly dock	SWRF, SWS	I
ROSACEAE	**ROSE FAMILY**		
Cotoneaster sp.	cotoneaster	SWRF	I
SALICACEAE	**WILLOW FAMILY**		
Populus fremontii Wats. ssp. *fremontii*	Fremont cottonwood, alamo	SCRF, SWRF	N
Salix exigua Nutt.	narrow-leaved willow	SWRF, SWS	N

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
Salix gooddingii C. Ball.	Goodding's black willow	SWRF	N
Salix laevigata Bebb	red willow	SWS, SCRF, SWRF	N
Salix lasiolepis Benth.	arroyo willow	SWS, SCRF, SWRF	N
SAURURACEAE	**LIZARD'S TAIL FAMILY**		
Anemopsis californica (Nutt.) Hook. & Arn.	yerba mansa	CBM, SWS	N
SIMAROUBACEAE	**QUASSIA OR SIMAROUBA FAMILY**		
Ailanthus altissima (Mill.) Swingle	tree of heaven	DCSS, NNV, SWRF	I
SOLANACEAE	**NIGHTSHADE FAMILY**		
Datura wrightii Regel	jimson weed	SWRF	N
Nicotiana glauca Grah.	tree tobacco	DCSS, SWRF	I
TAMARICACEAE	**TAMARISK FAMILY**		
Tamarix sp.	tamarisk	CBM, SWRF	I
ANGIOSPERMS: MONOCOTS			
ARECACEAE	**PALM FAMILY**		
Phoenix canariensis Chabaud.	Canary Island date palm	SWRF	I
Washingtonia robusta Wendl.	Washington palm	NNV, SWRF	I
CYPERACEAE	**SEDGE FAMILY**		
Cyperus sp.	nutsedge	SWRF	N
Schoenoplectus [=*Scirpus*] *californicus* (C.A. Mey.) Soják	California bulrush	SWRF	N
JUNCACEAE	**RUSH FAMILY**		
Juncus acutus L. ssp. *leopoldii* (Parl.) Snog.	spiny rush	CBM, SWRF, SWS	N
POACEAE (GRAMINEAE)	**GRASS FAMILY**		
Arundo donax L.	giant reed	SWRF	I
Bromus diandrus Roth.	ripgut grass	SWRF	I
Distichlis spicata (L.) E. Greene	saltgrass	CBM, DCSS, SWRF, SWS	N
Piptatherum [=*Oryzopsis*] *miliaceum* (L.) Cosson	smilo grass	SWRF	I
Polypogon monspeliensis (L.) Desf.	annual beard grass	SWS	I
Vulpia myuros (L.) var. *hirsuta* (Hackel.) Asch. & Graebr.	rattail fescue	SWRF	I

ATTACHMENT 1
PLANT SPECIES OBSERVED WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
TYPHACEAE	**CATTAIL FAMILY**		
Typha latifolia L.	broad-leaved cattail	SWRF	N

HABITATS
CBM = Coastal brackish marsh
DCSS = Disturbed Diegan coastal sage scrub
DH = Disturbed habitat
NNV = Non-native vegetation
SCRF = Southern cottonwood-willow riparian forest
SWRF = Southern arroyo willow riparian forest
SWS = Southern willow scrub

OTHER TERMS
N = Native to locality
I = Introduced species from outside locality

ATTACHMENT 2

ATTACHMENT 2
WILDLIFE SPECIES OBSERVED/DETECTED WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
INVERTEBRATES (Nomenclature from Evans 2007; Mattoni 1990; and Opler and Wright 1999)				
FORMICIDAE	**ANTS**			
Pogonomyrmex sp.	Harvester ant	SWS		O
HESPERIIDAE	**SKIPPERS**			
Hylephila phyleus	fiery skipper	SWRF		O
PAPILIONIDAE	**PARNASSIANS & SWALLOWTAILS**			
Papilio rutulus	western tiger swallowtail	SCRF		O
Papilio cresphontes	giant swallowtail	CBM, SWS		O
PIERIDAE	**WHITES & SULPHURS**			
Colias eurytheme	Alfalfa or orange sulphur	SWS		O
Pontia protodice	common or checkered white	SWS		O
Pieris rapae	cabbage white	SCRF		O
LYCAENIDAE	**BLUES, COPPERS, & HAIRSTREAKS**			
Everes amyntula	western tailed blue	DCSS		O
NYMPHALIDAE	**BRUSH-FOOTED BUTTERFLIES**			
Limenitis lorquini lorquini	Lorquin's admiral	SWS, SWRF		O
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)				
IGUANIDAE	**IGUANID LIZARDS**			
Sceloporus occidentalis	western fence lizard	SCRF, SWRF, SWS		O
BIRDS (Nomenclature from American Ornithologists' Union 1998 and Unitt 2004)				
ACCIPITRIDAE	**HAWKS, KITES, & EAGLES**			
Buteo lineatus elegans	red-shouldered hawk	SWRF	U / Y	O, V
COLUMBIDAE	**PIGEONS & DOVES**			
Columba livia	rock dove (I)	SWS	C / Y	O

ATTACHMENT 2
WILDLIFE SPECIES OBSERVED/DETECTED WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
Zenaida macroura marginella	mourning dove	SWS	C / Y	O, V
TROCHILIDAE	**HUMMINGBIRDS**			
Calypte anna	Anna's hummingbird	SWS, SCRF	C / Y	O, V
TYRANNIDAE	**TYRANT FLYCATCHERS**			
Sayornis nigricans semiatra	black phoebe	SWRF	C / Y	O
PICIDAE	**WOODPECKERS & SAPSUCKERS**			
Picoides nuttallii	Nuttall's woodpecker	SCRF	U / Y	O, V
CORVIDAE	**CROWS, JAYS, & MAGPIES**			
Aphelocoma californica	western scrub-jay	SCRF, SWRF, SWS	C / Y	O, V
Corvus brachyrhynchos hesperis	American crow	SWS	C / Y	O, V
AEGITHALIDAE	**BUSHTIT**			
Psaltriparus minimus minimus	bushtit	SCRF	C / Y	O, V
TROGLODYTIDAE	**WRENS**			
Cistothorus palustris	marsh wren	SWRF	U / Y	V
Thryomanes bewickii	Bewick's wren	SWS	C / Y	O, V
Troglodytes aedon parkmanii	house wren	SWS	F / Y	O, V
TIMALIIDAE	**BABBLERS**			
Chamaea fasciata henshawi	wrentit	SCRF	C / Y	V
EMBERIZIDAE	**EMBERIZIDS**			
Pipilo crissalis	California towhee	NNV, SWRF, SWS	C / Y	O, V
Pipilo maculatus	spotted towhee	SWS	C / Y	O, V
CARDINALIDAE	**CARDINALS & GROSBEAKS**			
Passerina amoena	lazuli bunting	SCRF	U / S	O
ICTERIDAE	**BLACKBIRDS & NEW WORLD ORIOLES**			
Icterus cucullatus nelsoni	hooded oriole	SWRF	U / S	O

ATTACHMENT 2
WILDLIFE SPECIES OBSERVED/DETECTED WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
FRINGILLIDAE	**FINCHES**			
Carduelis psaltria hesperophilus	lesser goldfinch	SCRF, SWS	C / Y	O, V
Carpodacus mexicanus frontalis	house finch	SWS, SCRF	C / Y	O, V
MAMMALS (Nomenclature from Baker et al. 2003)				
LEPORIDAE	**RABBITS & HARES**			
Sylvilagus audubonii	desert cottontail	SWS		O, T
SCIURIDAE	**SQUIRRELS & CHIPMUNKS**			
Spermophilus beecheyi	California ground squirrel	SCRF		O
CANIDAE	**CANIDS**			
Canis latrans	coyote	SWS		S, T

I = Introduced species

HABITATS
CBM = Coastal brackish marsh
DCSS = Disturbed Diegan coastal sage scrub
NNV = Non-native vegetation
SCRF = Southern cottonwood-willow riparian forest
SWRF = Southern arroyo willow riparian forest
SWS = Southern willow scrub

SEASONALITY (Birds only)
S = Spring/summer resident; probable breeder on-site or in vicinity
Y = Year-round resident; probable breeder on-site or in vicinity

EVIDENCE OF OCCURRENCE
O = Observed
S = Scat
T = Track
V = Vocalization

ABUNDANCE (based on Garrett and Dunn 1981)
C = Common to abundant; almost always encountered in proper habitat, usually in moderate to large numbers
F = Fairly common; usually encountered in proper habitat, generally not in large numbers
U = Uncommon; occurs in small numbers or only locally

ATTACHMENT 3

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA

Scientific / Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
		ANGIOSPERMS: DICOTS			
AMARANTHACEAE	**AMARANTH FAMILY**				
Atriplex pacifica South Coast saltscale	1B, List A	Annual herb; coastal bluff scrub, coastal dunes, coastal sage scrub, playas; blooms Mar.–Oct.; elevation less than 500 feet.	N	L	The survey area contains suitable soils and marginally suitable scrub habitat. The nearest recorded occurrence of this species is possibly as close as one-half mile southeast of the site (State of California 2008e).
Atriplex serenana var. *davidsonii* Davidson's saltscale	1B, List A	Annual herb; coastal bluff scrub, coastal sage scrub, alkaline soil; blooms April–Oct.; elevation less than 1,000 feet.	N	L	The survey area contains marginally suitable habitat.
Suaeda esteroa Estuary seablite	1B, List A	Perennial herb; coastal salt marshes and swamps; blooms May–Oct.; elevation less than 20 feet.	N	L	The survey area contains marginally suitable marsh habitat.
Suaeda taxifolia Woolly seablite	4, List D	Evergreen shrub; coastal bluff scrub, coastal dunes, margins of coastal salt marshes and swamps; blooms Jan.–Dec.; elevation less than 200 feet.	N	L	The survey area contains marginally suitable marsh habitat.

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific / Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
ASTERACEAE	**SUNFLOWER FAMILY**				
Ambrosia chenopodiifolia San Diego bur-sage	2, List B	Shrub; coastal sage scrub, cobbly loam soils; blooms April–June; elevation 150–500 feet. Approximately 10 occurrences known in San Diego. Additional populations in Baja California, Mexico.	N	U	The nearest recorded occurrence of this species is approximately one mile southeast of the survey area (State of California 2008e). However, the survey area lacks suitable, arid, open sage scrub habitat.
Ambrosia monogyra Singlewhorl burrobrush	2	Shrub; arid washes, disturbed places; blooms Aug.-Nov.; elevation less than 2,000 feet.	N	H	The survey area contains suitable riparian habitat. This species is known to occur in the immediate vicinity of the survey area within the Department of Public Works mitigation site (State of California 2008e).
Ambrosia pumila San Diego ambrosia	FE, 1B, List A, NE, MSCP	Perennial herb; chaparral, coastal sage scrub, valley and foothill grassland, creek beds, vernal pools, often in disturbed areas; blooms May–Sept.; elevation less than 1,400 feet. Many occurrences extirpated in San Diego County.	N	L	The survey area contains marginally suitable riparian habitat. The nearest recorded occurrences are within two miles of the survey area; however, two of these three populations are likely extirpated (State of California 2008e).

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific / Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
Artemisia palmeri San Diego sagewort	4, List D	Deciduous shrub; coastal sage scrub, chaparral, riparian, mesic, sandy areas; blooms May–Sept.; elevation less than 3,000 feet.	N	H	The survey area contains suitable riparian habitat.
Centromadia [=*Hemizonia*] *parryi* ssp. *australis* Southern tarplant	1B, List A	Annual herb; margins of marshes and swamps, valley and foothill grassland, vernal pools; blooms May–Nov.; elevation less than 1,400 feet.	N	L	The survey area contains marginally suitable marsh habitat.
Centromadia [=*Hemizonia*] *pungens* ssp. *laevis* Smooth tarplant	1B, List A	Annual herb; chenopod scrub, meadow and seeps, playas, riparian woodland, valley and foothill grassland, alkaline soils; blooms April–Sept.; elevation less than 1,600 feet.	N	L	The survey area contains marginally suitable habitat.
Deinandra [=*Hemizonia*] *conjugens* Otay tarplant	FT, CE, 1B, List A, NE, MSCP	Annual herb; coastal sage scrub, valley and foothill grassland, clay soils; blooms May–June, elevation less than 1,000 feet.	N	U	The survey area lacks suitable open sage scrub habitat. The nearest recorded occurrences of this species that are presumed extant are within two miles east of the survey area (State of California 2008e).

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific / Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
Ericameria palmeri var. *palmeri* Palmer's goldenbush	2, List B, NE, MSCP	Evergreen shrub; chaparral coastal sage scrub, typically in mesic areas; blooms July–Nov.; elevation less than 2,000 feet. Known from six occurrences in California.	N	U	The survey area contains marginally suitable sage scrub habitat. However, this species would have been apparent if present at the time of the surveys.
Isocoma menziesii var. *menziesii* [=var. *decumbens*] Decumbent goldenbush	1B, List A	Shrub; chaparral, coastal sage scrub, sandy soils, often in disturbed areas; blooms April–Nov.; elevation less than 500 feet.	N	U	The survey area contains marginally suitable sage scrub habitat. However, this species should have been apparent if present at the time of the surveys. The nearest recorded occurrence of this species is within two miles of the survey area (State of California 2008e).
Iva hayesiana San Diego marsh-elder	2, List B	Perennial herb; marshes and swamps, playas, riparian areas; blooms April–Sept.; elevation below 1,700 feet.	N	M	The survey area contains patches of suitable open riparian habitat. The nearest recorded occurrence of this species is within two miles of the survey area (State of California 2008e).
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	1B, List A	Annual herb; coastal salt marsh, vernal pools, playas; blooms Feb.–June; elevation less than 4,000 feet.	N	L	The survey area contains marginally suitable marsh habitat.

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific / Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
BORAGINACEAE	**BORAGE FAMILY**				
Nama stenocarpum Mud nama	2, List B	Annual/perennial herb; marshes and swamps, lake margins, riverbanks; blooms Jan.–July; elevation less than 1,700 feet.	N	L	The survey area contains marginally suitable habitat along the channel banks. The nearest recorded occurrence of this species is within one mile of the survey area (State of California 2008e).
BRASSICACEAE	**MUSTARD FAMILY**				
Nasturtium [=*Rorippa*] *gambellii* Gambel's water cress	FE, CT, 1B, List A	Perennial herb; marshes and swamps; blooms April–Sept.; elevation less than 1,100 feet.	N	U	The survey area contains marginally suitable habitat; however, no recent sightings of this species in San Diego county are known.
CACTACEAE	**CACTUS FAMILY**				
Bergerocactus emoryi Golden-spined cereus	2, List B	Succulent; closed-cone coniferous forest, chaparral, coastal sage scrub, sandy; blooms May–June; elevation less than 1,300 feet.	N	U	This species would have been apparent if present at the time of the surveys. The nearest recorded occurrence of this species is within two miles southeast of the survey area (State of California 2008e).

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific / Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
Cylindropuntia californica [=*Opuntia californica* var. *californica, O. parryi*] Snake cholla	1B, List A, NE, MSCP	Succulent shrub; chaparral, coastal sage scrub; blooms April–May; elevation 100–500 feet.	N	U	This species would have been apparent if present at the time of the surveys. The nearest recorded occurrences of this species are within two miles southeast of the survey area (State of California 2008e).
Ferocactus viridescens San Diego barrel cactus	2, List B, MSCP	Succulent; chaparral, coastal sage scrub, valley and foothill grassland, vernal pools; blooms May–June; elevation less than 1,500 feet.	N	U	The survey area lacks suitable The nearest recorded occurrences of this species are within two miles of the survey area (State of California 2008e).
FABACEAE	**LEGUME FAMILY**				
Astragalus deanei Dean's milk-vetch	1B, List A	Perennial herb; chaparral, coastal sage scrub, riparian, blooms Feb.–May, elevation 250–2,200 feet. Known from tributaries to Otay and Sweetwater rivers.	N	L	The survey are contains marginally suitable habitat. The nearest recorded occurrence of this species is within two miles of the survey area (State of California 2008e).

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific / Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
LAMIACEAE	**MINT FAMILY**				
Acanthomintha ilicifolia San Diego thorn-mint	FT, CE, 1B, List A, NE, MSCP	Annual herb; chaparral, coastal sage scrub, and grasslands on friable or broken clay soils; blooms April–June; elevation less than 3,100 feet.	N	U	The survey area lacks suitable open sage scrub habitat. The nearest recorded occurrence is within two miles of the survey area; however, this population is possibly extirpated (State of California 2008e).
Monardella linoides ssp. *viminea* [=*M. viminea*] Willowy monardella	FE, CE, 1B, List A, NE, MSCP	Perennial herb; closed-cone coniferous forest, chaparral, coastal sage scrub, riparian scrub, riparian woodlands, sandy seasonal dry washes; blooms June–Aug; elevation 160–1,300 feet. Known in California from fewer than 15 locations.	N	U	The survey area lacks suitable open riparian habitat along the river channels.
PLANTAGINACEAE [=SCROPHULARIACEAE]					
Stemodia durantifolia purple stemodia	2, List B	Perennial herb; sandy soil along minor creeks and seasonal drainages; blooms Jan.-Dec.; elevation less than 900 feet.	N	U	The survey area contains marginally suitable habitat. The nearest recorded occurrence of this species within two miles of the survey area is historical and likely extirpated. (State of California 2008e).

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Scientific / Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
SCROPHULARIACEAE	**FIGWORT FAMILY**				
Cordylanthus orcuttianus Orcutt's bird's-beak	2, List B, MSCP	Annual herb; coastal sage scrub; blooms March–Sept.; elevation less than 1,200 feet.	N	U	The survey area contains suitable habitat and soils. However, this species is not known to occur in the vicinity of the survey area.
		ANGIOSPERMS: MONOCOTS			
JUNCACEAE	**RUSH FAMILY**				
Juncus acutus ssp. *leopoldii* Southwestern spiny rush	4, List D	Perennial herb; coastal dunes, meadows and seeps, coastal salt marsh, riparian; blooms May–June; elevation less than 3,000 feet.	Y	O	This species was observed within the coastal brackish marsh habitat of the survey area.

POTENTIAL TO OCCUR
U = Unlikely
L = Low potential
M = Moderate potential
H = High potential
O = Observed

SENSITIVITY CODES

FEDERAL CANDIDATES AND LISTED PLANTS
FE = Federally listed endangered
FT = Federally listed threatened

STATE LISTED PLANTS
CE = State listed endangered
CT = State listed threatened

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

COUNTY OF SAN DIEGO

NE	=	Narrow endemic
MSCP	=	Multiple Species Conservation Program covered species
List A	=	Plants rare, threatened, or endangered in California
List B	=	Plants rare, threatened, or endangered in California but more common elsewhere
List D	=	Plants limited in distribution and uncommon but not presently rare or endangered

CALIFORNIA NATIVE PLANT SOCIETY LISTS

1B	=	Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2	=	Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
4	=	A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

ATTACHMENT 4

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

Date of Field Work (mm/dd/yyyy): 08/08/2008

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Juncus acutus ssp. leopoldii*

Common Name: spiny rush

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 12 Subsequent Visit? ☐ yes ☑ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☑ no ☐ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: RECON Environmental, Inc.
Address: 1927 Fifth Avenue
San Diego, CA 92101-2358
E-mail Address: bogg@recon-us.com
Phone: (619) 308-9333

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

_____ # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: San Diego Landowner / Mgr.: County of San Diego
Quad Name: National City Elevation: 40-60 feet
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): aerial map
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy <1 meter meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ ***OR*** Geographic (Latitude & Longitude) ☑
Coordinates: 32.649804, -117.054143; 32.650044, -117.053996; 32.651955, -117.05023; 32.652571, -117.049286; 32.652759, -117.049117; 32.652945, -117.048891

Habitat Description *(plant communities, dominants, associates, substrates/soils, aspects/slope):*
Sweetwater River floodplain: coastal brackish marsh dominated by Salicornia sp.; under-story of southern willow scrub dominated by Salix exigua; and under-story of southern arroyo willow riparian forest dominated by Salix lasiolepis, S. laevigata, and S. gooddingii. Soils are Riverwash or Salinas clay.

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☑ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: Locations are within approximately ten feet of a pedestrian, equestrian, and bicycle trail.

Visible disturbances:

Threats:

Comments:

Determination: *(check one or more, and fill in blanks)*
☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☐
Habitat	☐	☐	☐
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? yes☐ no☐

ATTACHMENT 5

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
INVERTEBRATES (Nomenclature from Eriksen and Belk 1999, Mattoni 1990, and Opler and Wright 1999)					
NYMPHALIDAE	**BRUSH-FOOTED BUTTERFLIES**				
Quino checkerspot butterfly *Euphydryas editha quino*	FE, Group 1	Open, dry areas in foothills, mesas, lake margins. Larval host plant *Plantago erecta.* Adult emergence mid-January through April.	N	U	An existing population occurs northeast of Sweetwater Reservoir. However, the survey area lacks suitable habitat, and the occurrence of larval host plant within the survey area is extremely unlikely.
FISHES (Nomenclature from State of California 2000)					
SALMONIDAE	**SALMON & TROUT**				
Southern California steelhead trout *Oncorhynchus mykiss irideus*	FE, CSC, Group 1	Freshwater streams and rivers.	N	U	Historical anadramous runs occurred in San Diego County, but none remain in south county. Mouth of Sweetwater is on bay, not ocean, and upstream movement is impaired by Sweetwater Dam.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
CYPRINIDAE	**MINNOWS**				
Arroyo chub *Gila orcutti*	CSC, *, Group 1	Slow-moving or backwater sections of streams, mud, or sand substrate.	N	U	Populations in San Diego County are known only from the San Luis Rey and Santa Margarita Rivers.
AMPHIBIANS (Nomenclature from Crother 2001 and Crother et al. 2003)					
SALIMANDRIDAE	**NEWTS**				
Coast range newt *Taricha torosa torosa*	CSC, Group 2	Under rocks, in or under logs, in rodent burrows. In or near streams, ponds, and reservoirs.	N	U	Populations in San Diego County are only known from the upper reaches of coastal rivers. In addition, inadequate upland refugial habitat occurs around the survey area.
PELOBATIDAE	**SPADEFOOT TOADS**				
Western spadefoot *Spea hammondii*	CSC, Group 2	Vernal pools, floodplains, and alkali flats within areas of open vegetation.	N	U	Populations are known from the southern coastal county, but no suitable temporary water bodies occur on the site and inadequate upland refugia occur around the survey area.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
BUFONIDAE	**TRUE TOADS**				
Arroyo toad *Bufo californicus*	FE, CSC, MSCP, Group 1	Open streamside sand/gravel flats. Quiet, shallow pools along stream edges are breeding habitat. Nocturnal except during breeding season (March–July).	N	U	The nearest recorded occurrence of this species is approximately 10 miles upstream from the survey area, is upstream from the Sweetwater Reservoir, and is possible extirpated (State of California 2008e). The survey area lacks adequate open channel breeding habitat and surrounding upland refugia.
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)					
EMYDIDAE	**BOX AND WATER TURTLES**				
Southern Pacific pond turtle *Actinemys* [=*Clemmys*] *marmorata pallida*	MSCP, Group 1	Ponds, small lakes, marshes, slow-moving, sometimes brackish water.	N	L	Populations are known from farther up the Sweetwater River but are isolated by the reservoir. The survey area contains marginally suitable habitat.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
IGUANIDAE	**IGUANID LIZARDS**				
Coast horned lizard *Phrynosoma coronatum* (San Diego/blainvillii population)	CSC, *, MSCP, Group 2	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.	N	M	The survey area contains marginally suitable upland habitat and harvester ants.
SCINCIDAE	**SKINKS**				
Coronado skink *Eumeces skiltonianus interparietalis*	CSC, Group 2	Grasslands, open woodlands and forest, broken chaparral. Rocky habitats near streams.	N	L	The survey area contains marginally suitable habitat.
TEIIDAE	**WHIPTAIL LIZARDS**				
Belding's orange-throated whiptail *Aspidoscelis hyperythra beldingi*	CSC, MSCP, Group 2	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	N	M	The survey area contains suitable habitat within open riparian margins or cleared areas on the site. The nearest recorded occurrence of this species is within two miles of the survey area (State of California 2008e).
Coastal western whiptail *Aspidoscelis tigris stejnegeri*	*, Group 2	Coastal sage scrub, chaparral, woodlands, and streamsides where plants are sparsely distributed.	N	L	The survey area contains marginally suitable habitat due to the high density of vegetation adjacent to the river channels.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
ANNIELLIDAE	**LEGLESS LIZARDS**				
California legless lizard *Anniella pulchra*	CSC, Group 2	Herbaceous layers with loose soil in coastal scrub, chaparral, and open riparian. Prefers dunes and sandy washes near moist soil.	N	L	The survey area contains marginally suitable habitat due to the high density of vegetation adjacent to the river channels.
BOIDAE	**BOAS**				
Coastal rosy boa *Charina trivirgata roseofusca*	*, Group 2	Coastal sage scrub, chaparral in inland and desert locales with rocky soils.	N	L	The survey area lacks suitable habitat.
COLUBRIDAE	**COLUBRID SNAKES**				
San Diego ringneck snake *Diadophis punctatus similis*	*, Group 2	Rocky areas in wet locales, such as swamps, damp forests, or riparian woodlands.	N	M	The survey area consists primarily of riparian habitat. This species can occur in an urbanized matrix.
Two-striped garter snake *Thamnophis hammondii*	CSC, *, Group 1	Permanent freshwater streams with rocky bottoms. Mesic areas.	N	M	The survey area contains suitable habitat, as this species can occur in disturbed watercourses with perennial flow.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
CROTALIDAE	**RATTLESNAKES**				
Red diamond rattlesnake *Crotalus ruber*	CSC, *, Group 2	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.	N	U	The survey area lacks a large expanse of undeveloped upland habitat.
BIRDS (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)					
Western least bittern (nesting) *Ixobrychus exilis hesperis*	CSC, Group 2	Brackish and freshwater marshes in the coastal lowland. Rare summer resident, rare in winter.	N	M	This species has been previously observed on the site in the early 1990s (John Lovio, pers. com.). However, the suitable nesting habitat within the survey area is scattered and occurs in small patches.
Great blue heron (rookery site) *Ardea herodias*	*, Group 2	Bays, lagoons, ponds, lakes. Non-breeding year-round visitor, some localized breeding.	N	U	Breeding rookeries are few, conspicuous, widely scattered, and tend to persist for years. None are known from the survey area or were observed during surveys.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
Little blue heron (nesting) *Egretta caerulea*		Very rare. Summer, fall, winter visitor. Bay, lagoons, and estuaries.	N	U	Breeding rookeries are few, conspicuous, widely scattered, and tend to persist for years. None are known from the survey area or were observed during surveys.
Great egret (rookery site) *Ardea alba*	*	Lagoons, bays, estuaries. Ponds and lakes in the coastal lowland. Winter visitor, uncommon in summer.	N	U	Breeding rookeries are few, conspicuous, widely scattered, and tend to persist for years. None are known from the survey area or were observed during surveys.
Snowy egret (rookery site) *Egretta thula thula*	*	Coastal waters and freshwater ponds and lakes. Winter visitor, summer resident. Localized breeding colonies.	N	U	Breeding rookeries are few, conspicuous, widely scattered, and tend to persist for years. None are known from the survey area or were observed during surveys.
Black-crowned night heron (rookery site) *Nycticorax nycticorax*	*	Lagoons, estuaries, bayshores, ponds, and lakes. Often roost in trees. Year-round visitor. Localized breeding.	N	U	Breeding rookeries are few, conspicuous, widely scattered, and tend to persist for years. None are known from the survey area or were observed during surveys.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
CICONIIDAE	**STORKS**				
White-faced ibis (rookery site) *Plegadis chihi*	CSC, MSCP, Group 1	Freshwater ponds, irrigated fields, brackish lagoons. Migrant and winter visitor, rare in summer. Very localized breeding.	N	U	San Diego county populations are in the north county. The survey area lacks adequate marsh nesting habitat.
ACCIPITRIDAE	**HAWKS, KITES, & EAGLES**				
Osprey (nesting) *Pandion haliaetus*	CSC, Group 1	Coast, lowland lakes, rarely foothills and mountain lakes. Uncommon fall/winter resident, rare in spring and summer. Fish are the primary prey item.	N	L	This species is known to forage on Sweetwater Reservoir, but the species has only recently recolonized the county for nesting. The closest known nesting site is on San Diego Bay.
White-tailed kite (nesting) *Elanus leucurus*	CFP, *, Group 1	Nest in riparian woodland, oaks, sycamores. Forage in open, grassy areas. Year-round resident.	N	M	This species is known to nest in extensive riparian forest above Sweetwater Reservoir. The survey area contains suitable nesting habitat but is not adjacent to a large expanse of natural grassland.
Northern harrier (nesting) *Circus cyaneus hudsonius*	CSC, MSCP, Group 1	Coastal lowland, marshes, grassland, agricultural fields. Migrant and winter resident, rare summer resident.	N	U	Site lacks suitable grassland or marsh nesting habitat.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
Sharp-shinned hawk (nesting) *Accipiter striatus*	CSC, Group 1	Open deciduous woodlands, forests, edges, parks, residential areas. Migrant and winter visitor.	N	U	This species is not expected to nest within the survey area, as it is a winter visitor to San Diego county.
Cooper's hawk (nesting) *Accipiter cooperii*	CSC, MSCP, Group 1	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Migrant and winter visitor.	N	H	This species typically nests in native riparian forest or non-native trees in urban matrices.
RALLIDAE	**RAILS, GALLINULES, & COOTS**				
Light-footed clapper rail *Rallus longirostris levipes*	FE, SE, CFP, MSCP, Group 1	Salt marshes supporting *Spartina foliosa.* Localized resident.	N	U	The nearest recorded occurrences are within two miles west of the survey area (State of California 2008e). However, the survey area lacks suitable tidal marsh habitat.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
CUCULIDAE	**CUCKOOS & ROADRUNNERS**				
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	FC, SE, BCC, Group 1	Riparian woodlands. Summer resident. Very localized breeding.	N	U	The nearest recorded occurrence is historical and within two miles of the survey area (State of California 2008e). However, this population is likely extirpated and is not known to have nested within San Diego county for decades (Unitt 2004).
TYRANNIDAE	**TYRANT FLYCATCHERS**				
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	FE, SE, MSCP, Group 1	Nesting restricted to willow thickets. Also occupies other woodlands. Rare spring and fall migrant, rare summer resident. Extremely localized breeding.	N	L	This species is restricted to a few colonies in San Diego County. This species is not known to nest in the vicinity of the survey area (Unitt 2004).
VIREONIDAE	**VIREOS**				
Least Bell's vireo (nesting) *Vireo bellii pusillus*	FE, SE, BCC, MSCP, Group 1	Willow riparian woodlands. Summer resident.	N	H	The survey area contains suitable nesting habitat within the riparian scrub and forest . The nearest recorded occurrences are within two miles of the survey area (State of California 2008e).

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
TROGLODYTIDAE	**WRENS**				
Coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	BCC, CSC, MSCP, *, Group 1	Maritime succulent scrub, coastal sage scrub with *Opuntia* thickets. Rare localized resident.	N	U	The nearest recorded occurrences of this species are within two miles of the survey area (State of California 2008e), However, the survey area lacks suitable nesting habitat with cactus thickets.
SYLVIIDAE	**GNATCATCHERS**				
Coastal California gnatcatcher *Polioptila californica californica*	FT, CSC, MSCP, Group 1	Coastal sage scrub, maritime succulent scrub. Resident.	N	U	The nearest recorded occurrences are within two miles of the survey area (State of California 2008e). However, the survey area and surrounding developed uplands lack suitable coastal sage scrub habitat.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
TURDIDAE	**THRUSHES**				
Western bluebird *Sialia mexicana*	MSCP, Group 2	Open woodlands, farmlands, orchards.	N	H	Nesting is known from the area (Unitt 2004), and suitable riparian forest occurs within the survey area. Year-round use of adjacent open areas (e.g. golf course) may facilitate occurrence on the site.
PARULIDAE	**WOOD WARBLERS**				
Yellow warbler (nesting) *Dendroica petechia brewsteri*	CSC, Group 2	Breeding restricted to riparian woodland. Spring and fall migrant, localized summer resident, rare winter visitor.	N	H	The survey area contains suitable nesting habitat within the riparian forest.
Yellow-breasted chat (nesting) *Icteria virens*	CSC, Group 1	Dense riparian woodland. Localized summer resident.	N	H	The survey area contains suitable nesting habitat within the riparian forest.
MAMMALS (Nomenclature from Jones et al. 1997 and Hall 1981)					
VESPERTILIONIDAE	**VESPER BATS**				

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

Species' Scientific Name/ Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site?	Potential to Occur On Site	Factual Basis for Determination of Occurrence Potential
Pallid bat *Antrozous pallidus*	CSC, Group 2	Arid deserts and grasslands. Shallow caves, crevices, rock outcrops, buildings, tree cavities. Especially near water. Colonial. Audible echolocation signal.	N	M	The survey area contains suitable roosting habitat within the riparian forest. The nearest recorded occurrence of this species is within two miles of the survey area (State of California 2008e).
MOLOSSIDAE	**FREE-TAILED BATS**				
Pocketed free-tailed bat *Nyctinomops femorosaccus*	CSC, Group 2	Normally roost in crevice in rocks, slopes, cliffs. Lower elevations in San Diego and Imperial Counties. Colonial. Leave roosts well after dark.	N	L	The survey area lacks suitable roosting habitat but may provide foraging opportunities. The nearest recorded occurrences of this species are within two miles of the survey area (State of California 2008e).
Western bonneted bat *Eumops perotis californicus*	CSC, *, Group 2	Woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows. Audible echolocation signal.	N	L	The survey area contains marginally suitable roosting habitat within the riparian forest.

POTENTIAL TO OCCUR
U = Unlikely
L = Low potential
M = Moderate potential
H = High potential

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR WITHIN THE SWEETWATER RIVER PHASE III TRAIL SURVEY AREA
(continued)

STATUS CODES

LISTED/PROPOSED

FE = Listed as endangered by the federal government
FT = Listed as threatened by the federal government
FC = Federal candidate for listing (taxa for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threat(s) to support proposals to list as endangered or threatened; development and publication of proposed rules for these taxa are anticipated)
SE = Listed as endangered by the state of California

OTHER

BCC = U.S. Fish and Wildlife Service: Birds of Conservation Concern
CFP = California fully protected species
CSC = California Department of Fish and Game species of special concern
MSCP = Multiple Species Conservation Program covered species
* = Taxa listed with an asterisk fall into one or more of the following categories:
- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

COUNTY OF SAN DIEGO SENSITIVE SPECIES

Group 1 = Rare, threatened, or endangered in California
Group 2 = Rare, threatened, or endangered in California but more common elsewhere